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HARVARD MEDICAL *ALUMNI BULLETIN*



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Letters

More Controversy

To the Editor of the *Bulletin*:

As a reader of the *Bulletin* for some fourteen years, I have been pleased by the increasing quality and quantity of the contents. The *Bulletin* certainly has a worthwhile function in informing the Alumni of the activities and purposes of the School. In addition, it helps the Alumni understand the School's financial problems. The numerous articles which are pure entertainment certainly constitute the frosting on the cake.

However, I think the *Bulletin* is derelict in its duty. A casual reader of the *Bulletin* would assume that everybody at Harvard Medical School loves everybody else and is in complete agreement on all matters having to do with medical education and practice. Humbug!

Unless the world has completely turned upside down, I can scarcely believe this is true, at Harvard or anywhere else. In these times of pressure to conform, the *Bulletin* seems to be following the trend of avoiding controversial issues. Does it avoid statements which might deter some Alumnus from contributing to the Alumni Fund? We all know that many men who are Alumni of the School (and even members of the Faculty) are in the forefront of such controversies as Medical Society politics, problems of ethics and discipline, the relationship between general practice and specialties, and National Health Insurance. At least one of our teaching institutions has spent considerable time working on various plans for a closed staff hospital, or, in other words, putting physicians who would otherwise be private doctors on a salary basis. And it should be obvious that many Alumni are intensely interested in the problems of academic freedom and the use of the Fifth Amendment.

If the newspapers and popular magazines and the politicians can bandy these subjects around, I think the *Bulletin* would be very timid indeed if it did not invite some sort of discussion by people who are involved in some of these issues. Any man who graduated from Harvard Medical School knows better than to think that any member of the Faculty speaks for a University policy. For every graduate or professor who strongly advocates BLACK, I am sure you can find at least one who will hotly endorse WHITE.

Let's have more light and less sweetness!

PUGNAX, '41

Ex-Ph. D.

To the Editor of the *Bulletin*:

I have always enjoyed the Harvard Medical Alumni *Bulletin*, but never—not since first hearing the Ballad of Chambers Street—have I been so thoroughly amused as by the January issue with the hilarious description of Fritz Irving's encounter with Aesculapius. I suggest that a special department be set aside in each issue for Dr. Irving's literary masterpieces.

Are reprints of "Aesculapius Inspects" available?

GORDON K. MOE, M.D.* '43A

*I have a Ph.D. too, but after reading this article I have torn up my diploma!

Contributors Revisited

To the Editor of the *Bulletin*:

May I congratulate the *Bulletin* on the attractive manner in which it presented "Aesculapius Inspects the Harvard Medical School." In particular, will you convey to the artist my personal thanks for his skill in translating into pictures exactly the atmosphere I had in mind when I wrote the piece. . .

With kindest regards to the *Bulletin* and its staff. . .

FREDERICK C. IRVING, '10

To the Editor of the *Bulletin*:

This is just a note to say that I enjoyed the new format of the *Bulletin* and that I was particularly pleased with the handling of my contribution, "De Morrem Dictu." I got a gleeful kick out of Craige's drawings. Please tell him that they could not have been more true to life if he had actually been on the scene. . .

I wonder if you know how many non-Harvard physicians read the *Bulletin*? And how do they get an opportunity to see a copy? How, for example, does a resident in a San Diego Naval Hospital who is a graduate of Tulane come upon the article? Nice questions! . . .

With all best wishes and thanks again for a really fine job.

ALBERT S. HYMAN, '18

The New Look

To the Editor of the *Bulletin*:

Being confined to bed with acute sinusitis has afforded me the opportunity for the first time since my graduation in 1934 of reading every word of the Harvard Medical Alumni *Bulletin*.

Allow me to congratulate you on the new format. It is excellent! Very much more readable than the former one. The articles were excellent, especially the one on John Homans by

Doctors Newton and Sosman. I am writing them today!

Please give my best as well as my commendation to Bert Dunphy and Ted Ingalls for their work as Associate Editors as well as their articles, and to Rolf Lium, Bimi Soutter and Rich Warren.

I am looking forward to the next issue.

THURLOW H. PELTON, '34

To the Editor of the *Bulletin*:

The current number of the Harvard Medical Alumni *Bulletin* has recently come. The new format is excellent, paralleling as it does the format of the Harvard Alumni *Bulletin*, which is a most appropriate change, and I gather that it also saves money, which is indeed a happy combination.

All of its numerous articles were most interesting to me, but the one, "John Homans, M.D.," and the other, "Aesculapius Inspects the Harvard Medical School," were priceless, and I shall treasure them both.

I have read the *Bulletin* almost, I think, from its inception, and have watched its growth with interest, until now it burgeons forth into a full-fledged magazine of which anyone would be proud. It will bring the news, views and abilities of the School to all of us Alumni in a truly vivid manner.

Please accept my congratulations.

I am looking forward to attending my 50th Anniversary, and can scarcely wait for it.

RICHARD DEXTER, '05

To the Editor of the *Bulletin*:

. . . Thanks (to) the Editors of the *Bulletin* for the new format and excellent articles, particularly the reprints of Fritz Irving's second masterpiece. The comments from this area (California) are already being heard and I know that the Alumni are going to enjoy these new efforts.

LOWELL F. BUSHNELL, '33

On Semi-Stinkers

To the Editor of the *Bulletin*:

Although I have on various occasions contributed to the Alumni Fund, (Dr. Dunphy's) article in the last *Bulletin* stirs up in me such a fear of being considered even a Semi-Stinker that I hasten to send the enclosed with high praise for his article and likewise for the new set-up of the *Bulletin*. I thought the content superb and all of the articles of extreme interest.

LYMAN RICHARDS, '19

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*Spies, T.D., et al. Postgraduate Med., March, 1955

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Financing the Harvard Medical School

George Packer Berry, M.D.

DEAN OF THE FACULTY OF MEDICINE

During the five years that I have been privileged to serve the Harvard Medical School as Dean, I have come to realize ever more profoundly what a great institution the School is. I have in mind particularly its greatness in the long tradition of excellence, of leadership in the education of physicians and scholars, and of accomplishment in the endless search for new knowledge.

The Alumni hardly need to be reminded of the evidence of Harvard's eminence in medicine. Dr. Dunphy's stimulating discussion appeared in the last *Bulletin*. He selected his few points well in explaining why all the members of his class, '33, are supporting the School.

That six of Harvard's twelve Nobel Laureates have come from the Faculty of Medicine is more than a matter of chance. The School evokes the very best from its scholars.

Nearly one-tenth of the 2,800 physicians serving as full-time faculty members in the nation's medical schools graduated from Harvard, according to data assembled in 1951 by the Office of Defense Mobilization and the Association of American Medical Colleges. The Harvard Medical School ranked first as the place where these full-time teachers had pursued their professional education. The per cent of all 1925-49 graduates teaching full-time was also computed for each medical school. The per cent for Harvard was 7.

Let me cite as an example of the School's outstanding contribution to the education of teachers what has been accomplished during the past 30 years by the Harvard Medical Unit at the Boston City Hospital, consisting of the Thorndike Memorial Laboratory and the Second and Fourth Medical Services. This unit was started in 1924. Since then, 83 professors and 34 associate professors—a total of 117—have received at least part of their professional training there. (Fifteen are serving in foreign medical schools.) They are the "living shadows" of great teachers, such as Francis Peabody, George Minot, Soma Weiss and their successors.

There is evidence that about half of the graduates now 10-15 years out of the Medical School have maintained some relation to academic medicine, while the rest are making their important contributions in practice, in civic enterprise, in governmental service and in a host

of other ways. This is a reflection of the high quality of the applicant who knocks upon our doors. It is the School's great asset to attract an unexcelled pool of applicants from which to select the students who will represent Harvard tomorrow as physicians. In contrast to the trend elsewhere, neither the quality nor the quantity of our pool has diminished.

THE JOB TO BE DONE

This is part of the record, but I am wandering from the main point. There is no question about the School's past glory or present excellence. The question, rather, to which we must address ourselves is this: What is the Harvard Medical School to become? How can we make the future not only secure, but more productive than ever? It is clear that solving the School's financial problems is a *sine qua non* for doing so. How can the School, for which a balanced picture is shown almost every year in the Treasurer's Report, cry poverty? I shall endeavor to answer this and other questions in the present discussion and to give you some idea of what we would be doing if the School had more adequate financial resources. Let me begin by outlining a few examples.

Basic Medical Sciences—First, and most important, we would continue to strengthen the basic medical sciences. We would try to capitalize on our experience with their unified teaching in an effort to make them even more meaningful than they are now in the armamentarium of the future scientist, teacher and physician. The experimental course Medical Sciences 201 A-B, now in its third year, has proved to be a stimulating adventure. It has awakened interest far and wide. On request, extensive material on this course has been sent to more than 80 American and foreign schools. The experimental course is only one effort to buttress the basic medical sciences. We are giving top priority also to the need of the basic science departments for a larger staff and for more continuing financial support. Ten years ago there were 43 full-time teachers appointed in these departments; today there are still only 43 and not all

of them are fully active. The School needs half again as many to deal effectively with the increasingly complex problems to be met in teaching and research. And what is even more essential, it needs the financial resources to give permanent security to more of our teachers as professors and associate professors on tenure. Today, we have only ten active teachers of the medical science departments who hold appointments without limit of time. At least another eight should be added. Reaching these objectives would enable the School to continue to attract brilliant young scholars and to provide more opportunities for the academic growth here of our best minds who now leave for major posts elsewhere. It would also enable the Faculty to continue experiments in teaching, to teach students in smaller groups, to develop special areas, such as endocrinology, biophysics, neurophysiology and other important segments of pharmacology, anatomy, biochemistry, bacteriology, pathology and physiology.

What would all this cost in the basic medical science area? For salaries to provide the additional teaching staff, it would cost \$160,000 a year, and for equipment to establish the new group of teachers, \$200,000 as a one-time expenditure.

Clinical Teaching—Another major objective is the reorientation of the clinical teaching in the direction of comprehensive medicine, which is scientific medicine in the fullest sense of the term. Here, with the aid of foundation grants, we are experimenting to learn how to make available opportunities for medical students to extend the orbit of their experience into the homes of patients and into the community. Two such programs, now getting actively under way, are centered at the Massachusetts General Hospital and at The Children's Hospital. The Departments of Medicine, Pediatrics, Psychiatry, Obstetrics, Surgery and Preventive Medicine—each drawing strength from all of the medical specialties—focus attention on the patient and his problems in an ecological setting. Thus, for example, pediatrics becomes the study of childhood rather than the study of a series of diseases that afflict children. This makes the study of disease processes no less important; it simply places into more meaningful context the significance of such studies. What does the School need to finance this kind of program? It needs permanent support for the teachers in this venture, teachers now precariously maintained on temporary money. It also needs key professors in permanent posts to stabilize such programs. Required also is a restudy of the relationship of the teaching hospital to the community and a restructuring of the hospital out-patient department to bring it into greater harmony with the needs of modern society.

Inherent in the development of comprehensive medicine is the expansion of psychiatry, now in process at the School. Toward this end, the Judge Baker Guidance

Center has affiliated with The Children's Hospital; modern facilities for child psychiatry have been built at the Metropolitan State Hospital, which has been fused for teaching purposes with the Boston Psychopathic Hospital; five other child guidance units in Greater Boston have set up a joint teaching program with the Department of Psychiatry; stronger ties have been forged among the McLean Hospital, the M.G.H. and the Medical School. Through new appointees, psychiatric teaching and research have been expanded in all the hospitals affiliated with the School. Several million dollars, given specifically for these purposes, have been expended to date for buildings and other necessary facilities. Virtually all of the continuing operation is being financed by temporary money coming from foundations and governmental grants. To solidify this program, the cost would be about \$200,000 a year, which would be shared by the School and the Affiliated Hospitals.

The Medical Library—The Medical Library is the heart of the School. Its use has quadrupled in a decade. It is literally bursting at the seams with books and readers—especially readers. As research has grown and has probed in ever-widening circles into every aspect of human biology, the demands on the Library have long since exceeded the Library's ability to meet them efficiently. In physical space, personnel and in the acquisition of books and journals, the Library is falling behind. This problem is under active and continual scrutiny by a special committee of the Faculty. The objective is to define for the Harvard Medical School the library facilities needed for teaching and research in terms of the total resources of the Boston community—those of Harvard's vast library holdings, those of the Boston Medical Library, and the material in the libraries of the other medical schools, the teaching hospitals, and the Massachusetts Institute of Technology. Extensive expansion of physical facilities and doubling of the present Library's budget are called for. To achieve these ends and to endow the operating costs would require \$5,000,000.

Repairs and Renovations—The Library's facilities, long since out-grown, are only one facet of the present inadequacy of the School's buildings surrounding the Longwood Quadrangle at 25 Shattuck Street. Constructed almost 50 years ago, these buildings have not been adequately maintained. Not only do the buildings fall far below the requirements of modern teaching and research, they are in desperate need of major repairs and renovations: the roofs leak, pipes are bursting, wires are burning out. With the expenditure of more than \$500,000, it has been possible to create and equip 7500 square feet of new laboratory and teaching space in Building D and to modernize many of its other facilities. The additional space has been created and equipped

at a cost very much less than new construction from the ground up. To renovate the remaining physical plant around the Quadrangle would require an expenditure of \$5,000,000. When this is finished, the cost of maintenance would again become minimal. It would remain that way only if we were able to maintain the plant properly. This would mean setting aside yearly sums adequate to provide for orderly renewal. Otherwise history would repeat itself. At least \$100,000 a year must be reserved for this purpose, over and above ordinary maintenance costs.

During the past summer, more than \$100,000 was spent on refurbishing Vanderbilt Hall from roof to cellar, making the dormitory an attractive place again for students to live in. We shall want to keep it this way, which means that at least \$10,000 a year beyond ordinary maintenance must be set aside. Again, as in the case of other physical facilities at the Harvard Medical Center, we must recognize that providing for renewal and maintenance is as important as the underwriting of the academic program. One cannot teach effectively in the street. There is no point in living from crisis to crisis with such a problem, for it constitutes an ever-present threat to the teaching enterprise.

Teachers' Salaries—Another point I should like to touch on now (I shall return to it later in what I hope will be a more meaningful way) is the problem of teachers' salaries. The average salary increase for teachers throughout the School has hardly kept pace with the inflation. An increase across the board is urgently needed. To raise the salaries of the full-time staff by 10 per cent would require an annual expenditure of \$140,000.

Student Expenses—Year by year it becomes more expensive for a student to attend the Harvard Medical School. His average costs have grown to \$2,500 a year. When one realizes that this is substantially more than half of the average family personal income, after taxes,* it is apparent that unless we are careful we may price ourselves out of the market. It is the Faculty's proud boast that the School can accept applicants without reference to economic status and that once a matriculant, a student is never forced to drop out for lack of funds. To maintain this position—one that all Alumni will join in wishing to maintain—and to meet the increased requests from students for financial help resulting from the \$200 increase in tuition to \$1000, will require another

\$50,000 a year more than is currently available for scholarships and loans. A decade ago, scholarships and loans were \$61,000. Currently the figure is budgeted at \$150,000. Incidentally, Miss Dorothy Murphy provided a charming note with the discovery that the Faculty Records for January 15, 1910 contain the following item: "Dean Christian read a letter from the Secretary of the Class of 1879 to the Corporation offering a sum of \$366.79 to be used as a loan fund for students in the Medical School. Upon the motion of Dr. Standish, it was VOTED that the Students' Aid Committee be empowered by this Faculty to manage this loan fund."

THE SCHOOL'S FINANCES

I hope that these examples will do more than indicate exciting areas of growth and potential. They will point the way, I believe, to understanding the need for greater resources at Harvard, and indeed at all medical schools. I have in mind the growing complexity of the teaching enterprise in modern medicine. This is the intrinsic factor in the problem. Extrinsic factors are important too. They include society's demand for more doctors, for better trained doctors and for better training at all levels of medical science, the increasing pace and scope of medical research, and the devastating effect of dollar inflation on such activities as ours. Surely we are not alone in suffering the effects of the devalued dollar, but the very nature of a medical school makes it particularly vulnerable. Just at a time when the demand is greatest for more doctors, paralleling the growing complexity of teaching, the School's resources are slashed by economic forces beyond its control. The intrinsic and extrinsic factors have created the present financial predicament. We must face the fact that for some of this complexity we are ourselves responsible by permitting the somewhat haphazard growth of the now ungainly teaching program commonly designated as "The Curriculum." This is not to demean the enormous benefits reaped from the expansion of the basic medical sciences and their extension into the clinic or the flowering of the clinical specialties. Nor is it to suggest that medical progress can be had simply by drawing up blueprints. But I submit that there is great merit in attempting to bring more order to the School's efforts. Achievements in this direction will surely enhance, not minimize, the inspired, individualistic, scientific bent of its scholars. For much of the School's financial predicament we are not responsible. But we *are* in financial difficulties. Let us examine them as constructively as we can.

Treasurer's Report—The only report on the financial position of the Medical School commonly available to the Alumni or others is the Treasurer's "Annual Financial Report to the Board of Overseers of Harvard College."

* Personal communication from Professor Seymour E. Harris of the Harvard Department of Economics. In addition to expressing his indebtedness to Professor Harris, the author wishes to thank Professor Sumner Slichter and Professor John Dunlop of the same department for their valuable suggestions. The author alone accepts responsibility for the burden of the economic argument.

This Report shows the income received by the School and the expenses incurred. When income exceeds expense, a credit position is shown. When expense exceeds income, the School operates in the red. The Report does not—it cannot—indicate whether the School has the resources necessary to meet its responsibilities or whether it is making effective use of available resources. A credit figure shows only that the School has limited in a given year its expenses to its available income.

The real financial position of the School can be understood best by comparing its presently available resources with those needed to carry on the program determined by the Faculty to be essential to the teaching of modern medicine. An effective way to make this vivid is to review the funds available for certain of the needs of the School a decade ago and today. From such a comparison can be projected what we think will be required for improvement and expansion along lines already described. We must now examine more precisely the present financial position of the School.

The School's "Cost of Living"—To make such an examination intelligently one must understand what has happened to the School's "cost of living." This means examining the falling purchasing power of the dollar. The purchasing power of the dollar has been halved in the last fifteen years. In the last decade it has dropped in value by about a third. Put another way, it took about \$1.50 to buy in 1953-54 what \$1.00 bought in 1943-44.

I should like now to propose a convenient concept that I have been using at the Medical School to explain the facts of the School's financial picture—I call this concept the "calorie-dollar." If one is to make valid comparisons, one needs a standard measure. A physician defines the nutritional requirements of the growing child in terms of calories—calories that are the same today, yesterday and tomorrow. A pediatrician would hardly recommend diets on the basis of a dollar's worth of this, or a quarter's worth of that. The calorie-dollar gives us such a standard.

The Calorie-Dollar—The purchasing power of the dollar was comparatively stable during the years 1935-1939.* This is one of the reasons why I chose the purchasing power of the consumer dollar in Boston for this five-year period, 1935-39, as our standard "calorie-dollar". Another reason for choosing this period as the point of reference is to emphasize the tremendous impact of the war on the School's activities. One could, of course, choose any period for the baseline, and I shall not quibble with those who wish to choose another period as unity.

With the help of the calorie-dollar, I now propose to analyze the post-war trend in medical education finances and to make comparisons of the School's fiscal problems at the beginning of the war, at the end of the war and now. Please keep in mind the approximate value of the dollar in terms of the "calorie-dollar": \$1.00 in 1935-39 = \$1.00; \$1.00 in 1943-44 = \$0.79; \$1.00 in 1953-54 = \$0.53. (Calorie-dollars and percentages based on calorie-dollars will be italicized in the present paper.) This is most easily visualized in Table 1, Column PPD, which is based on the purchasing power of the consumer dollar in Boston.*

Further orientation can be gained by comparison with the period of almost 50 years ago. At this time, the fruitfulness of the marriage of the basic sciences and the clinic was being widely recognized. This recognition was crystallized in 1910 by Abraham Flexner in his famous "Report."** The dollar in 1909-10 (using the same 1935-39 baseline) was worth about \$1.50. Today's dollar, therefore, has lost about 65 per cent of its value, i.e., it will buy about one-third of what it would buy in the days of the Flexner Report. This was only a few years after the buildings at the Longwood Quadrangle were erected and occupied by the School.

To demonstrate the value of the concept of the calorie-dollar as a useful device for understanding the School's financial picture, I give two examples before analyzing the budget in detail. When I say that the School's total expenditures have increased from \$235,000 in 1909-10 to \$4,842,000 in 1953-54, an erroneous impression is given. Comparison of the two numbers shows that there has been a twenty-fold increase in the dollars spent. But by translating these dollars into calorie-dollars, the equivalent figures become: \$353,000 (1909-10) and \$2,566,000 (1953-54). Thus, instead of a twenty-fold increase in expenditures, the ability of the School to buy what it must buy has increased only seven times—a very different matter.

A second example illustrates the point in a different way. The best money the School has, its financial back-

* I am aware that economists use differing PPD's (my calorie-dollar) in their efforts to understand shifting social trends: the market-basket dollar, the building-cost dollar, the heavy-industry dollar, etc. Depending on the ingredients selected for computing each of these PPD's, one kind may differ somewhat from another. In the present discussion, such relative variations are not significant, for we shall be concerned with orders of magnitude. I am basing my argument, therefore, on the assumption that the calorie-dollar I have chosen reflects in general the Medical School's calorie-dollar. Any error in this assumption does not alter the main point. Furthermore, calorie-dollars based in good part on shifting wage scales have less value than the one I have selected. I am presenting the School's situation, therefore, in conservative terms.

** "Medical Education in the United States and Canada." A Report to the Carnegie Foundation for the Advancement of Teaching. Bulletin #4, 1910.

* PPD based on data from Bureau of Labor Statistics.

TABLE 1
HARVARD MEDICAL SCHOOL

Operating Expense in Relation to Total Expense and Firm General Income
Shown in actual dollars and calorie-dollars

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
	Total Fiscal Year (D + J)	Total Firm General Income	Other HMS Income Restricted and Earned Income for Special Purposes (B + C)	Total Income from University Sources (B + C)	Operating Expense University & Hospital Total	Percentage of Operating Expense To Total Firm General Income (E ÷ A)	Remainder of Firm General Income (B - E)	Temporary Income Available for Purposes (B - E)	Temporary Income Available for Research and Educational Purposes (B - E)	Total Income from Outside Sources (H + I)	P/PJ*
1909-10	235,092	177,699	36,173	213,872	30,788	7,334	38,122	139,577	18,676	21,220	1.50 (ext.)
1943-44	352,638	266,548	54,260	320,808	46,182	11,001	57,183	209,365	28,014	31,830	0.79
1953-54	4,841,751	1,468,381	593,831	2,062,212	216,996	—	216,996	773,824	25,126	743,418	0.53
	2,566,128	778,242	314,730	1,092,972	171,427	11	171,427	611,321	19,850	587,300	
					506,660	242,914	749,574	718,807	688,069	2,779,539	
					268,530	128,744	397,274	380,968	364,677	1,473,156	
Percentage Increase (1943-54)	144%	48%	136%	66%	133%	245%	—7%	2638%	191%	274%	-33% (loss)
	63%	-0.6% (loss)	58%	11%	57%	132%	-38% (loss)	1737%	95%	151%	

* Purchasing Power of the Consumer Dollar in Boston (1935-39=\$1.00)
Bureau of Labor Statistics

bone, is called in our tabulation the "Total Firm General Income." This includes such assets as those gained through tuition and general investment income, money that we can count on from year to year and use in more or less unrestricted ways. This money has both dependability and polyvalence.

The School's total firm general income was \$990,820 in 1943-44; it was \$1,468,381 in 1953-54—an increase of 48 per cent in actual dollars. The "corrected" figures, i.e., the money in calorie-dollars, show that in 1943-44 our firm general income was \$782,748 and in 1953-54 this income was \$778,242 a loss of 0.6 per cent. Let me repeat. Although the School has increased by half again the number of actual dollars in its firm general income, it has lost during the last decade in purchasing power in this all-important category.

The moral is both obvious and painful. The traditional financial structure of the School is altering in a direction that may imperil the School's independence. We have not continued to grow stronger in terms of our firm income. To offset this deficiency we must find new money—unrestricted money—or face the prospect of having our enterprise undermined. This disturbing fact, I should like to emphasize, must be borne in mind as one reads further.

THE ILLUSORY NATURE OF THE EXPANDING BUDGET

The School's total income in 1943-44 was almost \$2,000,000 and in 1953-54 it was \$4,800,000, an apparent increase of \$2,800,000, or actually 144 per cent. During this same period, the purchasing power of the dollar fell by a third. So, instead of increasing 144 per cent in value, the School's purchasing power was increased by only 63 per cent (calorie-dollars).

These and other facts about the School's financial position are set forth in Table 1 as actual dollar expenditures.* The several sources of income are also indicated. It is significant to compare the varying patterns of change in the several categories and to note the differences between dollar and calorie-dollar values.

The data in Table 1 demonstrate that although the quantity of the School's total income has been increasing rapidly, the significance of the increase is more apparent than real because the purchasing power of the dollars received has been falling.

Even though the purchasing power of the School's income has increased 63 per cent, the pattern of this increased income does not mesh with the pattern of increased expenses. Inasmuch as most of the expenses are

* For the extensive financial data and their skilful analysis, the author is deeply indebted to one of the members of his staff, Miss Susan D. Page. More than two years of unremitting effort on her part has been required to assemble these data and many others that are also pertinent to this study.

relatively fixed and continuing, if we are to gear them to income, more money of a permanent nature available for general purposes is essential. Let me repeat, more continuing general purpose income ("hard money") will emerge as the essential ingredient needed to solve the School's financial problems.

The present increased income has been significantly derived from three sources: (1) endowment, (2) tuition, and (3) money provided to support the research program, *i.e.*, *temporary* annual income coming from sources outside the School and *restricted* almost entirely to research purposes.*

Our income from (1) endowment has been augmented because the principal itself has grown and the interest rate has gone up from 4.1 to 4.6. As a result, the School's endowment income (restricted and unrestricted combined) has *apparently* increased 66 per cent, from \$696,000 in 1943-44 to \$1,154,000 in 1953-54, but this was a *real* increase of only 11 per cent in calorie-dollars.

The second of the three sources, (2) tuition (undergraduate) *apparently* increased 63 per cent, from \$274,000 to \$446,000. This was a *real* increase of only 9 per cent (calorie-dollars). The tuition rate has risen to \$1000 for 1954-55, yet it pays for only a small part of the cost of teaching a medical student.

The remaining significant source of income, (3) the *temporary* and *restricted* money derived from outside sources mainly to support the research program, *apparently* increased 274 per cent, from \$743,000 to \$2,780,000, but the *real* increase was 151 per cent (calorie-dollars). These facts are summarized in Table 2.

TABLE 2. *Increases in Income: Apparent and Real*

Category of Income	1943-44	1953-54	Apparent Increase	Real Increase
Endowment	\$696,000	\$1,154,000	66%	11%
Tuition	274,000	446,000	63%	9%
Outside Sources (mainly restricted to research)	743,000	2,780,000	274%	151%

The significance of the figures in Table 2 lies in the percentages of real increase. Also of moment is the relative amount that each occupies in the School's total budget. This is shown in Table 3, which compares these amounts for the academic years 1943-44 and 1953-54.

Table 3 shows that the tuition and endowment income together presently make up 33 per cent of the

TABLE 3. *Percentages of Total Budget*

Academic Year	Endowment Income	Tuition	All Other H.M.S.	Outside Sources	Total
1943-44	35%	14%	14%	37%	100%
1953-54	24%	9%	10%	57%	100%

total budget. By contrast, 57 per cent derives from outside sources. In 1943-44, the situation was reversed. Then, tuition and endowment income together were 49 per cent; outside sources contributed 37 per cent. This is a remarkable shift in a decade.

It is also interesting to see who provides the outside money. Table 4 gives in percentage terms the breakdown into four groups (donors) of this outside income.

TABLE 4. *Percentages of Total Income From Outside Donors*

Academic Year	Individuals	Foundations	Industry	Government	Total
1943-44	3%	22%	7%	68%	100%
1953-54	11%	28%	2%	59%	100%

At present more than half—actually 59 per cent—of the outside income is derived from many agencies of the Federal Government, but a decade ago the Government's contributions, owing to war-time contracts, were as high as 68 per cent of the total of this kind of money. The amount, however, was far less—\$500,000 as compared to \$1,600,000.

From foundations (private, public and industrial) the income is presently 28 per cent of the total; a decade ago it was 22 per cent.

Donations from individuals have risen from 3 to 11 per cent. *This is almost entirely unrestricted Alumni giving.* In 1943-44 the amount included in the "Individual" classification from Alumni was \$100. It was more than \$100,000 last year!

The amount from industry, excluding industrial foundations, has decreased. Even when grants from industrial foundations are included—they are growing in amount—industry's support of medical education is far below what I think it ought to be in view of the many contributions medicine has made to our flourishing industrialized society.

Reference to Table 1 (Column A) will show that for 1953-54 the total expended by the School was \$4,841,751. Of this total, \$2,779,539 or 57 per cent (Column J) was derived from outside sources. I should like to explore its significance, but first it is useful to examine its composition. (To do this easily, I round off the figure to \$2,780,000.) The following tabulation shows what goes to make up the 57 per cent (the total from outside sources) expended by the School in 1953-54:

- (1) \$1,977,000 (71 per cent) was mostly for the direct cost of specific research programs.
- (2) \$115,000 (4 per cent) was for the direct costs of specific experimental teaching programs (for example, the new experimental course in the basic medical sciences).

* That part of Column C of Table 1 designated "Earned Income for Special Purposes," which was \$429,254 actual dollars in 1953-54, has been omitted from these three significant sources. This part is made up of income derived predominantly from room rents from students, laundry, cleaning and other fees, tuition for graduate teaching and many other kinds of sales of services—all income, that is, which is unavailable for general operating and academic expenses as herein defined.

- (3) \$487,000 (18 per cent) could be used for general purposes.
(4) \$201,000 (7 per cent) was added to the amounts for research and teaching to pay for some of the general operating costs ("overhead") incident to these programs.

Now I shall discuss each of these points in order.

(1) \$1,977,000—71 per cent of the total from outside sources for the direct cost of specific research programs. How dependable is this money? We don't know—it depends on the national economy. It *has* been increasing every year during the past decade (except for 1945-46). During the past three years, the increase has been at least \$200,000 a year. This constitutes dramatic evidence of the confidence outside donors have in the research ability of the staff at the Harvard Medical Center. Essential as this money is to a community of scholars, it nonetheless presents major problems to the School, which must meet, out of a budget already badly strained, the additional indirect costs involved in using this research money.

(2) \$115,000—4 per cent of the total from outside sources for the direct costs of specific experimental teaching programs. This is important money in that it enables the Faculty to engage in experimental educational ventures. Without this kind of support, the teaching would tend to stagnate, just as without research our understanding of normal and pathological processes would stop growing.

(3) \$487,000—18 per cent of the total from outside sources available for general purposes. Thanks to this transfusion of unrestricted gifts, the School was able to end up "in balance" in 1953-54. Upon whom was the School dependent for this transfusion? Primarily upon the Alumni and their program of annual unrestricted giving, upon help received from the University and upon many, many donors who gave lesser amounts, including those contributing through the National Fund for Medical Education. Without any one of these substantial sources of help the School would have had an actual deficit in 1953-54 of at least \$150,000. The emergency help from the University cannot be counted as permanent. The School must continue to lean heavily on the Alumni.

(4) \$201,000 toward operating costs of research ("overhead") which is 7 per cent of the total from outside sources. This "overhead" should be increased. Careful explorations have shown that this "overhead" is about 33 per cent at the Medical School and at several of the Affiliated Hospitals. Expressed another way, this means that the indirect costs are 33 per cent of the direct costs. The School is now paying about 26 per cent of this 33 per cent, the donors only 7 per cent. We think that the indirect expense should be borne in larger measure by the donors. The School's budget* is seri-

ously strained in meeting the present large obligation for operating costs—it can do so only at the expense of other important activities. Efforts are being made to reorient the thinking of outside donors in this direction. If we are successful, we shall add substantially to the credit side of the School's income, perhaps by as much as \$120,000 annually.

Hard and Soft Money—What is the significance of this rather detailed analysis of these budgetary items? The most important point, I think, is that all of this outside money, necessary though it be for bringing to fruition the School's total enterprise, has an undependability about it that raises havoc with long-range programs. Even the relatively small unrestricted part of this money, which can be used for general purposes (items 3 and 4 above), can only be classified as "Gifts for Current Use." This is an appropriate title, for it means that the money is given to be spent. After it has been spent, there is no guarantee of more.

When, in planning for the year's activities, we gear ourselves to a certain level of operation, we cannot easily or quickly jump to a higher or lower level in the succeeding year. The nature of research programs and the requirements of professional personnel demand security and continuity for high accomplishment. Hard money is required to attain such security and continuity. It must be combined with restricted or "soft" money to conduct a flourishing research program. The trend toward overbalancing the budget with soft money imperils the School's mobility and the Faculty's freedom to direct its own course. In this sense, important as we all know it to be, research can become parasitic upon the whole enterprise. Although the quantity of the total income has increased *63 per cent* when translated into calorie-dollars, this is far from a completely usable gain in terms of the School's needs. In other words, the increased income does not parallel increased expenses in that it is either too restricted or, when sufficiently unrestricted, it is insufficient in amount.

Eight Hundred Pockets—There is another point—the dreadful complexity of having one's resources in many different pockets. The School is presently operating with more than 800 separate budgetary accounts! Alice never found anything like this in Wonderland. Remember that expenditures must always be made from the correct pocket. The School is often in the position of starving because the "food" pocket is empty, although other pockets may be full.

What I think I have now demonstrated is that the growing School budget does not reflect a comparable growth in efficiency or strength.

I have been discussing income. Now I turn to expense.

* It should be understood that the 7 per cent (on the 57 per cent under discussion) is actually 4 per cent of the School's total budget.

Mounting Expenses—The School's mounting general expenses of a continuing nature may be divided into two categories, general operating expenses and academic expenses. The latter are, of course, the result of our very reason for being; the former flow from the latter—they are interdependent.

What and how great are the School's operating expenses? During the past decade they have increased from \$217,000 to \$750,000—245 per cent in actual dollars, 132 per cent in calorie-dollars, as shown in Table 1, Column E. In 1953-54, they were 15 per cent of the total budget; in 1943-44, 11 per cent. Neither is exorbitant, but they have been increasing.

The disturbing feature is this: operating expenses have reached a level that is equal to more than half of the School's firm general income. In other words, operating expenses have been consuming amounts equivalent to a greater and greater proportion of our firm money. They were equal to only one-fifth in 1943-44. One can see these relationships in Table 5.

—the increase in bills over which the School has relatively little control, contributions to the support of the University and the transfer of funds to the Affiliated Hospitals. But the main reason lies in another area; it is the growing complexity of our operation, which I have already discussed.

As mentioned above, the proportion of the essential operating expenses to the School's firm income has become so great (Table 5, Column F) that we have had to find new money, mainly annual gifts, to keep the School solvent. Much has been coming from the Alumni in the last three years. In 1943-44, it is noteworthy that this "temporary income available for general purposes" was only \$25,000. It did not rise above \$93,000 until 1949. Is it any wonder that there was a Medical School deficit in those years? In 1953-54, this special income reached an all-time high of \$688,069 (Table 1, Column H), which was the equivalent of one-third of the School's total income from University sources.

In seeking to understand the School's operating expenses and the reasons for their increase, it is useful to divide them into General Administration, Building Operations, and University and Hospital Transfers.

Table 6 shows the actual payments and the proportions each of these categories represented in the year 1953-54, as compared to 1943-44.

Of obvious interest in Table 6 are the virtually identical percentages of General Administration in the two years shown, and the tremendous change in those of Building Operations and University and Hospital Transfers. The boost (Table 1, Column E) from \$217,000 to \$750,000 is a staggering increase of 245 per cent. Translated into calorie-dollars, it still represents a staggering increase of 132 per cent. This is one of the main reasons why I emphasize the School's need to find new sources of revenue.

I invite your attention to Column G (B-E) in Table 5 (shown also in Table 1, Column G). This column represents the *total firm general income remaining after operating expenses have been allowed for*. This balance represents a decrease of 7 per cent in the number of actual dollars available for other academic expenses. *In calorie-dollars this was a 38 per cent decrease*. This represents the impact of soaring operating expenses. These operating expenses include heat, light and power, over which the School has little control, as well as other building costs—maintenance and caretaking—and the costs of general-administration and University and Hospital Transfers (see also Table 6). In 1953-54, the general administration and building costs together were \$506,660 and the School turned over to the Hospitals and University \$242,914, a total of \$749,574 (Table 1, Column E). The funds transferred to Affiliated Hospitals were funds earmarked for the reimbursement of the indirect expenses of research programs actually carried on in the Hospitals.

How can one account for this increase in operating costs? Some of the reasons have already been mentioned

In addition to the general operating expenses, we have had to meet the problem of serious deterioration of the School's physical plant at 25 Shattuck Street. And for this purpose there was no reserve. It has been necessary, therefore, to pay for mandatory repairs and renovations on a catch-as-catch-can basis. We have been scrounging wherever we scent a loose cent! From 1950 to 1954, more than \$500,000 were expended on improvements in the Longwood Quadrangle. During the last decade, the average annual bill for improvements has been \$45,000. There was one year (1948-49) when the School was forced to spend \$105,000 (it did not have it) in order to eliminate fire hazards. This

TABLE 5. *The Impact of Operating Expenses on Firm Income*

Academic Year	B Total Firm Gen'l Income	E Total Operating Expenses	F Percentage Operating Expense to Total Firm Gen'l Income	G (B-E) Firm Gen'l Income
1943-44	\$ 990,820	\$216,996	22%	\$773,824
1953-54	1,468,381	749,574	51%	718,807

TABLE 6. *Total Operating Expenses*

Academic Year	General Administration	Building Operations	University and Hospital Transfers	Total Operating Expenses
1943-44	59,000 (27%)	158,000 (73%)	—	217,000 (100%)
1953-54	213,000 (28%)	294,000 (39%)	243,000 (33%)	750,000 (100%)

expenditure put the School in debt. Currently, there is *no* money available for physical improvements at the School unless new sources be tapped or our capital reduced.

To help to tide the School over inevitable emergencies, we have managed to accumulate a small reserve—it is known as the “Departmental Credit Balance.” It has been laboriously assembled from odd dollars captured from the School’s firm income. We try not to spend every last penny, but we come too close to it for comfort. The School is fortunate that a windfall comes along from time to time—we are not above shaking the tree.

The Continuing Academic Budget—The principal demand on the School’s resources may for convenience be designated the “continuing academic budget.” This is an abstraction; it is not a budgetary unit. It is that nucleus of money which the School is able to provide to its academic departments toward the salaries, wages and general expenses of these departments, plus the cost of operating the Medical Library. Ten years ago the continuing academic budget represented about 40 per cent of the School’s total expenditures; today it represents about 25 per cent. The difference reflects the disproportion in the growth of restricted (soft) money from outside sources to the growth of the School’s firm income (hard money), as shown in Table 1, Columns I and B.

Even more interesting are the data relating the academic budget to this firm income. Ten years ago, the academic budget was equivalent to about 80 per cent of the available hard money. Today the percentage is the same. In other words, the School’s hard money, if kept inviolate, can preserve the security of the Faculty. The help of the Alumni and other friends has made it possible to accomplish this during the inflation. Their unrestricted annual gifts have been indispensable. With these gifts, we have been able to manipulate, patch, fit, and in other ways piece together to our immediate advantage the crazy-quilt pattern of random, temporary financing. This kind of a financial operation does not put us on the high road to security. It merely keeps the School going from day to day.

The Faculty Needs a Raise—A serious challenge in struggling with intrinsic and extrinsic factors that have made medical education so expensive is the problem of providing more adequate salaries. Economic forces during the last decade have been such that the Faculty has barely managed to keep pace with the inflation. As one looks back at the expanding academic budget and at the significant increases in faculty salaries, one may get the wrong impression unless the figures are corrected to calorie-dollars. To drive this point home I have compared, for the academic years 1943-44 and 1953-54, the average annual rates of salaries and wages for the full-

TABLE 7
Salaries and Wages and Numbers of Teachers and Employees for 1943-44 and 1953-54

	Percentage Increases in Average Annual Rates for Full-Time Teachers and Employees in the Basic Medical Science Departments	
	1943-44 vs. 1953-54 Percentage Increase based on Actual Dollars	1943-44 vs. 1953-54 Percentage Increase based on Calorie-Dollars
<i>Salaries</i>		
Professor	45%	-3% (loss)
Associate Professor	73	16
Assistant Professor	50	1
Associate	76	18
Instructor	53	3
<i>Wages</i>		
Office	76	18
Laboratory	83	23
Total of all Salaries Paid through HMS	94	30
Total of All Wages Paid through HMS	143	63
The number of the teaching staff has increased from 633 in 1943-44 to 838 in 1953-54 (a 32 per cent increase).		
The number of employees has increased from 290 to 477 (a 64 per cent increase) for these same years.		

time teachers and employees in the departments of the basic medical sciences. In Table 7, the data are shown for these two academic years as *percentage increases* calculated on the basis of actual dollars and of calorie-dollars.

Table 7 shows that the professor, to pick a single example, has received during the period from 1943-44 to 1953-54 a 45 per cent increase in the dollars he earns—an impressive fact. It also shows that the average wage has gone up even more: 76 per cent for the office worker, 83 per cent for the laboratory worker. Not only have the earnings increased, the size of the staff and the number of employees have increased too, 32 and 64 per cent, respectively.

The column in Table 7 based on the calorie-dollar presents the picture in a more realistic light. The professor has not gained on the inflation; he has lost 3 per cent. The assistant professor has barely kept up with the inflation; the instructor is only slightly ahead of him; the associate is relatively the best off.

There is something else to note. Wage increases for employees are running ahead of professional salary increases. What I am about to say, I hope to state very exactly in order not to be misunderstood. It is unfortunate that the economics of the last decade have worked out in such a way that professional salaries have not kept pace with the wages of the non-professional group. By this I am not saying that wages are now too high, or that they were not pitifully low a decade ago. But the pressures have been such that the Harvard Medical School, along with private schools elsewhere, albeit to a lesser extent, has been forced to “discriminate” against its teachers. To be true to Har-

vard's heritage, we must find the resources to provide for our teachers the financial security they are entitled to. The members of the Faculty now deserve a raise right across the board. Not to find the money for this is to risk diverting the stream of new talent that flows through the School.

Many of the basic needs for growth and stability dealt with in the present discussion are brought together in the following tabulation.

Additional income on an annual basis is required for

(1) Security of present operations	\$150,000
(2) The teaching program	
Increases in full-time salaries	\$140,000
Enlarging the teaching staff	160,000
Reorganizing clinical teaching	90,000
	<hr/>
	390,000
(3) Students	
Scholarships and loans	50,000
Maintenance of Vanderbilt Hall	10,000
	<hr/>
	60,000
(4) Immediate improvement of the	
Library's operations	20,000
(5) Major building repairs and renovations	100,000
	<hr/>
Total additional annual income	\$720,000
Against this need there is in sight or in hand	
(1) Income from increased tuition	\$105,000
(2) Endowment income to become available	102,000
(3) Increased payments for indirect expenses	
incident to research	120,000
	<hr/>
	\$327,000

This leaves an unmet need for immediate additional annual income of \$393,000. Another \$100,000 a year from the Alumni in addition to what they are currently giving to the School would be more than a quarter of the unmet need.

SUMMARY

In summary, I think the following are significant points.

The School's continuing firm income (hard money) has not kept pace with the inflation. Operating costs have increased. The *real* value (calorie-dollars) of the School's hard money has decreased. Yet the job to be done becomes bigger and more complex.

To meet the shrinkage in the value of the School's hard money, we have been forced to find new sources of revenue, which has resulted in expanding the category in the budget designated "Temporary Income Available for General Purposes" (Column H in Table 1). The phenomenal growth in this category (from \$25,126 in 1943-44 to \$688,069 in 1953-54) has been the School's salvation. For this help the School is indebted to many sources, as mentioned previously, but particularly to the Alumni, who have really begun to pull us up toward

what we hope some day will be a thoroughly secure operating position.

Consider the magnitude of the job imposed on the School's hard money—the dollars that make up the total firm general income. Here is the School's best dollar. Unfortunately, it is not a rubber dollar. Yet it must be stretched and stretched to cover the students' inability to meet their full financial obligations, to cover necessary repairs and improvements, to cover maintenance and other operating expenses, and most important of all, to provide the continuing academic budget.

An additional burden is the portion of this best dollar required to meet a large share of the indirect costs of research in a total program that grows more complex by the day. This leads me to ask what others have been asking too: Has the Medical School reached the point of saturation on research? In a certain sense, it has. So many of the School's fiscal problems already relate to the large total of research grants that I can only speculate on the possible arrival of the day, perhaps not too far distant, when the School's entire research structure will have to be drastically overhauled.

In a more valid sense, the School is not research poor. It could only be so considered were we to think of the School as a mere collection of classrooms where professors lecture from old books perpetuating errors that they do not even recognize. There can be no progress in medicine without research. Research and teaching must go hand in hand. The issue is to find out how to make research interlock more effectively with teaching to the end that the whole will be stronger than the parts. In the last analysis, the problem is to devise the way to make ourselves able better to afford our large research activities. Therein lies the answer to what is now an apparent paradox.

But there is a point far more important than this apparent paradox. It is this. The welfare of the Harvard Medical School is a trust in the hands of each of us. To succeeding classes of students each is under a profound obligation to pass on a stronger institution than he found. I think it is the great privilege of the Alumni to help us meet this obligation. They can go a long way toward making the School secure for today and alive for tomorrow.

For help in exploring and unraveling the School's complex financial fabric, the author is greatly indebted to Mr. Henry C. Meadow, Assistant Dean.

Mr. Lester Grant, H.M.S. IV, one of the author's staff for the past five years, has helped in many ways to bring together the present study.

Many others, members of the Dean's Office Staff and the Staff of the Alumni Office, made valuable contributions.

Smoke Gets In Your Id

SOME PSYCHOANALYTIC REFLECTIONS ON TOBACCO

Photo by Walter Fleischer

Peter H. Knapp, '41

It is natural for the baffled clinician, faced by the tobacco problem, a riddle wrapped in an enigma inside a smoke-ring, to seek the Olympian council of the psychoanalyst. Unfortunately, as he gazes upward, Olympus looks like Vesuvius. For as Dr. Prout has remarked (5), he turns to a group, which almost to a man (and woman) relies heavily on the solace of smoking. Picture the fraternity, wise and well adjusted as a result of their own training, and hence normally, if not supernormally, garrulous. Yet hour after hour they sit, fettered by silence, with patients who are encouraged to say everything that comes into their minds. The picture has grown to be a standard lampoon. Standard, if not always accurate. *The New Yorker*, that aimiable, deflationary agency, drew a sequence of an attentive analytic ear being lent to patient after patient, all, in this case, obviously voluble females. The last sketches show the analyst coming home to a spouse, who merely has to open her mouth for him to bellow "Shut up!" How little *The New Yorker* artist knew of the true ways of the analyst. He hasn't been storing up such frustration all day. He has been biting the end off his cigar, grinding his teeth on his pipe stem, sucking in luxurious liters of cigarette smoke, to be emitted with a sibilant hiss just before the tolerant interpretation. But now to ask him to dissect his own lifeline? To focus his farseeing vision down onto the tip of his own cheroot? In the true tradition of the tobacco industry, it is asking the blindfolded to lead the blind.



"... to focus his farseeing vision down onto the tip of his own cheroot . . ."

Psychoanalysis, however, has never been one to shy away from a challenge. Freud was not able to conquer the cigar. In fact, one point of Dr. Prout's which I would question is whether he ever really understood the habit, the deep hold it had on him. It is reported that almost ten years before his death, after his first operation for oral carcinoma, he was told to stop smoking, yet tragically couldn't. Perhaps we should not ask too much of one man in a lifetime. Like that other great cigar smoker of his generation, Winston Churchill, Freud still accomplished a good deal.

Not only was his impact on the intellectual and philosophic tradition of his time revolutionary, but, as Dr. Sosman (8) in these pages recently pointed out, raising a roentgenologic eyebrow, he even made a dent in the medical curriculum! If, for this task, he leaned on the treacherous Havana reed, he threw aside many of the stronger crutches of smugness, evasion, and self-deception, which men carried about with them long before the advent of tobacco.

So, as an analyst, I will gladly take up the struggle with the forces of smokiness where Dr. Prout left it. In



"... sucking in luxurious liters of cigarette smoke ..."

the tradition of self-scrutiny, yes, but also for more practical reasons. One need not dwell on the overflowing ashtray, the asphyxiating atmosphere, the nicotine stain, the smoker's cough, and the ever present possibility that smoking is simply, in a mild way, suicidal. Beyond these general hazards are particular ones in our branch of the healing art. There is, for example, the phenomenon of the Hour without Inspiration, caused by the fact that the analyst is out of cigarettes, so is his secretary, and it isn't cricket to sponge one from the patient, who, since his own smoking during the hour is frowned upon, might very well refuse anyhow. Consider the priceless insights forever lost as a result of that other, more terrifying event, the Hour without Illumination, when cigarette in hand, the analyst is out of matches.

Having little original to contribute, I shall proceed according to the tra-

ditional principle: When in doubt, write a Preliminary Report. Happily, the traditional opening gun, in this instance, is easily fired. One should review the "literature". As Dr. Prout has pointed out, the task is not to review it, but to find it. Some points in the extensive physiologic work that has been done will interest us later; here, we may remark on the frequently voiced opinion that even physiologists can seldom approach smoking without an axe to grind. Turning to the psychoanalytic field, one encounters an extraordinary void. Fenichel, in his "Psychoanalytic Theory of Neurosis," which has been called an "encyclopedia of stupendous proportions" (6), lists no title referring to smoking in the 1646 books and papers quoted in his bibliography. He has one sentence of his own about the topic. To that I shall also return, as well as to another sentence in one of his papers—noting

at this point only the fact that these are the sole references to tobacco from the pen of a man particularly interested in respiratory problems. From some who knew him, I hear that he himself, as one might guess, smoked.

The paucity of "literature" suggests that one turn to Literature. Glancing at the familiar secondary source [(1) referred to by Dr. Sosman and many others], we find that tobacco, mentioned sparingly, tends to be glorified. "A sovereign remedy to all diseases," according to Robert Burton, it is extolled by Lamb, Byron, Bulwer Lytton, Kingsley, and Kipling. A frequent note of remorse, and resolves at farewell, creep into the poetic pronouncements. The mixture of feelings is admirably summed up by the words of G. L. Hemminger: "Tobacco is a dirty weed. I like it." The psychic explorer, whether artist or analyst, seems to feel about smoking as a man might about his mistress: great fondness, mixed with a little guilt, and no great inclination to discuss her.

A similar disinclination may have blunted my own perceptions. Hence, I adopt a second traditional principle: When your data are skimpy, subject them to statistical analysis. I have reviewed my past twenty years of experience with Adult American Subjects. The criterion for inclusion in the study has been a casual acquaintanceship, sufficient to form some idea of smoking habits. Not included are strangers who were simply asked, "Have you a cigarette?" How many casual acquaintances does one have in life? A difficult question, but by a variety of methods, I arrived at exactly the same figure for the twenty year period—ten thousand (plus or minus five thousand). How many of those smoked? A more difficult one, which was answered by a technique borrowed from the overworked practitioner with the overcrowded waiting room, namely Flash Diagnosis. I picked the figure 80 per cent. As a control, I then picked up the telephone and called seven friends. Five of them also said

80 per cent, one said 80 to 95, the last said 65 to 80. At that point I stopped. The sample may be biased, because of the factor of segregational selectivity, or the Birds-of-a-Feather Principle. I would expect a similar skewing if the problem had been to estimate the number of non-prohibitionists, irregular churchgoers, or quasi-delusional optimists about the future of the Boston Red Sox and the Harvard football team. The only remaining methodological hurdle was that of grouping, solved by adopting a classification of Smokers closely paralleling that of Simmel (7) and others for alcoholics. It has the additional advantage of applying almost equally well to Non-smokers. Assignment within categories was by the time-honored method of Rapid Mental Deduction, of which I can only say that the Probable Error probably exceeds Chance Expectation.

The results follow. Ten thousand subjects (\pm five thousand) were distributed as follows:

Group A: Smokers—80% (\pm 20%)

1) "Normal" or Social Smokers—4% (\pm 1%). These are individuals who "take a smoke" only on social and convivial occasions. In my material women outnumber men in this category about 20:1. Frequently blond, generally young, their smoking is often accompanied by a virginal blush, occasionally by a deathly pallor. Large puffs of smoke are emitted rapidly, sometimes with an audible squeal. They are prone to light the wrong end of a filtered cigarette, causing a look of vague bewilderment to enter their eye.

2) *Neurotic or Reactive Smokers*—26% (\pm 6%). These are individuals who boast that they can smoke or leave 'em alone—and often can. They frequently go for considerable periods, up to several hours, without smoking. They change brands frequently and smoke only in response to stress. It should be stated that the stress is often, if not generally, minimal. An unkind word, or look, or thought, a delay waiting for a bus or

elevator, the change of atmosphere following a motion picture, the strain of waiting for a cocktail to chill in a shaker, will usually send them reaching for a cigarette. In this respect they differ from the next group, in whom such stresses always are effective.

3) *Addictive Smokers*—50% (\pm 12%). These persons are further distinguished by the fact that one other stress frequently causes them to light a cigarette, namely the stress of finishing a prior cigarette. Their attitude toward smoking is dominated by rationalization. If deprived of smoking for any length of time, they develop a hungry look, inhale hugely at the earliest opportunity, often quivering with satisfaction. They have a favorite brand, feel wounded if they can't obtain it, but in a pinch will smoke anything, including used cigar butts. They frequently light up before breakfast, if not before really awakening. As a rule, they only light the wrong end of a filter-tipped cigarette when they are fumbling around in the pitch dark during the middle of the night.

Group B: Non-smokers—20% (\pm 6%)

1) "Normal" Non-smokers—13% (\pm 4%). These are a happy few, who deserve much more thorough

investigation. Through early associations or deeply ingrained and effortless convictions, they have never started to smoke, or having started, decided they didn't like it and stopped. Those whom I have known well in this group have given evidence of some inhibitions, often extending to other areas of their personality. The point is their relative freedom from conflict. If occasionally they show a little hauteur at their colleagues, who are struggling against—or have run out of—cigarettes, who is to blame them?

2) *Neurotic Non-smokers*—5% (\pm 2%). These individuals are often obese, even gluttonous, but point with pride to the fact that they have never smoked. Others are thin as a pikestaff, shudder at the mention of tobacco, and have the ability, when asked if they smoke, to answer "never" without opening, or even decompressing, their lips. Although they are sanctimonious about their avoidance, it is not for them, as it is for the next group, an overriding and overwhelming issue in their life.

3) *Addictive Non-smokers or Reformed Smokers*—2% (\pm 1%). Among these, the fact of renunciation has assumed major importance. They fall into two subgroups. (a) Reformed Smokers—Vacillating



"... a ceaseless struggle against temptation ..."

Type. These individuals have renounced the practice, but not the desire for smoking. They are involved in a ceaseless struggle against temptation, given to purging their souls by frequent relapses followed by agonizing re-assumption of the sackcloth, and often reach a compromise in which they will not buy their own cigarettes but will smoke their friends' almost to death. (b) Reformed Smokers—Militant Type, have conquered the habit by dint of mobilizing extraordinary and constantly renewed violent psychic energy. Smoke comes from their eyes instead of their nostrils. They crusade. The mildest of them are raconteurs; the more moderate, pamphleteers; the most extreme, fanatics.

As is true of most statistical analyses, this one is as accurate as the groups which it tries to quantify. Classification, like beauty, may be largely in the eye of the beholder.

Nonetheless, the clinical vignette has a certain usefulness. It is important to recognize types of smokers, if only to realize that we are dealing with a problem that has more than one facet. In all likelihood, my categories represent points on continua, rough groupings of individuals struggling not only with smoking, but with atomic energy, quantum physics, mass production, electronic communication systems and the Republican party—in short, all the complexities of civilization—as well as with their thoroughly outmoded brute natures.

Like all Preliminary Reports, then, this one points chiefly to the need for further Work in the Field, worthwhile, if only to find out more about the same brute nature, leaving aside the potential public health danger. Addiction is a serious problem, whether it be to alcohol, morphine, or the communist ideology. Here it is

exemplified in a laboratory of at least 75,000,000 subjects, puffing away more or less contentedly, unexplored.

In such further work I am an interested party, as a psychoanalyst engaged in research, at present preoccupied with respiratory function. I would like to close with a Prolegomena, setting forth some, by no means all, of the considerations which seem important in such an investigation.

1) Smoking may have a *secondary* significance which allows it to express a variety of drives and conflicts. Problems over whether or not to be one of the group, how to look hemannish or blasé, depending on one's inner image transferred from a copywriter's brain, problems concerning what to do and what not to do with one's hands, how dirty one should or should not be, in short, problems up and down the scale of human development may all find symbolic, and not too deeply disguised, representation in smoking habits. They become part of an individual's web of ritualized activity. Orange juice followed by eggs; eggs followed by coffee; coffee followed by a cigarette. So it goes: Only now we ask: Smoking followed by—what?

2) Such secondary meanings of smoking must be distinguished from *primary* ones, the fundamental urge or urges involved in the habit. Why smoking in the first place? We take for granted that somehow it is pleasant. But why? To breathe in periodically an overheated, irritant mixture of carbon fumes, tar and plant poison—what is the attraction? Here surely we enter the field of irrational, deep longings, hard to put into words.

3) One word, conveying a concept, has been used, as Dr. Prout indicates, to throw some light into this haze. It is the word "oral." It is, I believe, here to stay. The myopic "scientist," cross-eyed from looking through a microscope with one eye and at a slide rule with the other, may not find the concept of orality important, but the advertising in-



"... a first langorous, soul-satisfying inhalation ..."

dustry certainly does. "Delicious!" "Try the Taste Test." "Reach for a Lucky instead of a Sweet." "Avoid that Future Shadow." And see that past shadow, of the child sucking on a lollipop, or attacking a candy wrapper, when next you watch a confirmed tobacco addict making love to the end of his cigar, or ripping the cellophane off a fresh pack of cigarettes, drooling slightly. However, merely to write off smoking with the label "oral" is not enough. The mouth is important in smoking, but so is it in gum chewing, flute playing, opera singing and hog calling. Let us not deny some points of difference among those pastimes, from each other and from smoking.

4) Strangely enough, there is another word, not often invoked in discussions of smoking, which seems to me to have pertinence. That is "respiratory." Speaking of smoking, Fenichel states that "respiratory erotism . . . may play a greater role than oral erotism, which has so far been the only one to be observed" (2). Again the pedant may find the term "erotism" difficult—but not, I think, the hardened smoker, aching for another deep, pungent, lungful. Granted that we still have much to discover about their psycho-physiology, such things do exist as erotic urges in general and respiratory cravings in particular. My own preference for a starting point toward understanding the latter, is the bi-phasic nature of the breathing act. To inspire is not the same thing as to expire, as can be clearly seen in many a smoker. The individual who lights a cigarette and takes a first languorous, soul-satisfying inhalation, is not the same one who a moment later grinds out his stub with a last violent exhalation and demands "What is your evidence?" The one-in-many and many-in-one is a problem that has beset philosophers for generations. Here we have it rolled in a cigarette.

5) Lest we lose sight of the problem of addiction, Fenichel, too, reminds us: "Alcohol and nicotine are

toxins, which by chemical means produce wished for changes in the balance of instinctual conflicts" (3, p. 63). What are some of these changes? Having watched some of my friends go through crises following withdrawal, I am ready to confess ignorance. However, I would call attention to one known and demonstrated action of nicotine, which may play a role in its addictive properties. That is its prolonged sympathomimetic after effect. Ordinarily we think of an addict, form an image of an opium den, and conceptualize, more or less precisely, euphoria, relaxation, lethe. But some individuals may crave satisfactions which come from genuine stimulation. Such was true of a group of addicts who seemed to require a bodily feeling of being keyed up and hyper-alert, and managed to obtain it from benzedrine (4). The same role may be played more diffusely in our age of speed by the cigarette, and its companion piece, the cup of coffee.

6). A final word concerns the current investigations into the role of smoking in Cancer and Heart Disease. Assuming that an association between heavy smoking and one or both is proven, where do we go from there? May I insert a modest plea for the growing viewpoint which urges a multi-factorial approach to etiology, and suggest that we still would be required to study closely the small platoons who succumbed, whereas an army of others didn't. Perhaps too, we should scrutinize those individuals who chain smoke their way into their eightieth or ninetieth year. Is it possible that hidden psychobiological factors, of which we are hopelessly unaware, could play a part both in the excessive smoking and in the susceptibility to illness, or the reverse?

Some may take these last remarks as being Soft on Smoking, or Coddling Cigarettes. I will close with a prediction. It is this: In two centuries or less, historians will look back on the Age of Tobacco as a curious

phase in human development, the habit which marked it as somewhat more elevated than cannibalism, but far from ideal, and one which was outgrown. I may be wrong. By then they may have portable equipment for continuous intra-nasal infusion of tar-free, nicotine-free, vitamin-enriched smoke. But history seems to show that there has been a slow progression from more primitive to less primitive ways of gratification. Though it is sociable and possibly not malignant by itself alone, evidence seems to be accumulating that smoking is far from health-promoting. Certainly it is infantile. The wordless longings and un verbalized tensions which contribute to it can find more constructive outlets. I hold with those who maintain that there is not only change, but advance, however slow. This, from one faced daily, both in patients and newsprint, with what led Freud to postulate a Death Instinct. My head stays in the clouds—and never mind what kind. I remain an optimist—reaching for another cigarette.

BIBLIOGRAPHY

1. Bartlett, John. "Bartlett's Familiar Quotations." Revised Edition, Christopher Morley, Editor. Boston: Little, Brown and Company, 1946.
2. Fenichel, Otto. "Respiratory Introspection," *Collected Papers of Otto Fenichel* (First Series) New York: W. W. Norton and Company, 1953.
3. Fenichel, Otto. *Psychoanalytic Theory of the Neuroses*. New York: W. W. Norton and Company, 1945.
4. Knapp, Peter H. "Amphetamine and Addiction," *J. of Nervous and Mental Disease*, V (May, 1952), 406-432.
5. Prout, Curtis. "Furor Fumandi," *Harvard Medical Alumni Bulletin*, 28 (June, 1954) 9-13.
6. Sachs, H. Quoted by B. Lewin in Introduction to *Collected Papers of Otto Fenichel*. (First Series) New York: W. W. Norton and Company, 1953.
7. Simmel, Ernst. "Alcoholism and Addiction," *Psychoanalytic Quart.*, 17:6, 1948.
8. Sosman, Dr. Merrill C. "Fashions in Medicine and in Medical Education," *Harvard Medical Alumni Bulletin*, 29 (October, 1954), 24-30.

Editorial

STOCK OF THE PURITANS

In reading Dean Berry's report, "Financing the Medical School", presented elsewhere in this issue of the *Bulletin*, one learns to bear in mind the shifting relation of his picturesquely succulent "calorie dollars" to the currently circulating medium of exchange. In comparison with the former the latter now bears a resemblance, so graphically expressed by the sailor when confronted with his first meringue, to the white of an egg beat up with a gust of wind. One must keep in mind the distinction between soft (although not necessarily easy) money, acquired on a short term basis, and hard money, coming regularly and reliably from tuition, invested capital and similar recurrently productive sources. The relation between these types of income is likewise shifting but not, unfortunately, in the desired direction.

One must bear in mind also that a proportion of both kinds of income is essentially brittle in the sense of being so restricted by the terms of its employment that it cannot be reshaped to serve another purpose or fill a different need. It is necessary to appreciate the fact that so diverse are the School's sources of income and so varied its expenditures that over 800 budgetary accounts are necessary to direct the multiple incoming streams into their proper channels of outflow.

Of these two general forms of income, "soft" money is given largely as special grants for research purposes which, essential as they are, are nevertheless in a way parasitic on the main plant. Perhaps the ivy colleges are appropriately so called. The overcynical or the too cautious might suggest a moratorium on the acquisition of new and expensive knowledge, but it is not in this direction that progress lies. One is reminded of the young lieutenant of a hard-pressed regiment at Gettysburg who seized the standard from a stricken color bearer and held it approximately erect while the line fell back behind him. When commanded to bring the colors back to the line he exhorted the line to come up to the colors and so it was done. Teaching and research must maintain their own unbroken line, and not by retreating together.

There is nothing particularly unfamiliar in the whole problem. Medical education in general is suffering the penalties of a tremendous increase in the costs of its complex operations, compounded by dollar inflation. All schools are faced with the necessity of making greater and greater purchases with dollars of which two are needed to buy what was a dollar's worth of commodities in 1940—whether in teaching skills, janitor's services or modern electrical appliances.

Dr. Berry has outlined the needs of Harvard Medical School and the funds required if they are to be met within the pleasant security of a balanced budget. In teaching, all full-time salaries should be raised 10 per cent at a per annum cost of \$140,000, and more teachers are needed in the basic sciences to the tune of

\$160,000 annually; moreover, \$200,000 in equipment must be procured as a long-term investment.

The reorientation of clinical teaching in the direction of comprehensive medicine, with due emphasis on psychiatry,—of considering man as an entity in relation to his environment rather than as an exercise in morbid anatomy,—is needed, at a cost of \$200,000 to be shared by the School and its affiliated hospitals. The library of the School is crying out for fiscal attention, but that is a matter that must be pondered in relation to the proximity, the facilities and the needs of the Boston Medical Library.

Vanderbilt Hall, which has been refurbished at a cost of \$100,000, must have \$10,000 a year above its ordinary maintenance expenditures to keep it in its present condition and repair the ravages of the spirited hordes that swarm through its corridors each year.

The teaching and administrative buildings of the School itself have had little enough attention in the half century of their existence; the dream of dwelling in marble halls, so popular at the turn of the century, has acquired some of the aspects of a nightmare in the postwar period with all the problems of antique wiring, superannuated plumbing, disintegrating gutters and a magnificent original disregard of spatial requirements to be faced. This is not to imply that the jungle is taking over a waste of leaking roofs and crumbling masonry, but that something more than a face-lifting operation is needed to rejuvenate the classic structures of Longwood Quadrangle. A thorough job of modernization within the stately walls will require an outlay of \$5,000,000, after which \$100,000 a year will be necessary to keep the plant in the style to which it has been unaccustomed.

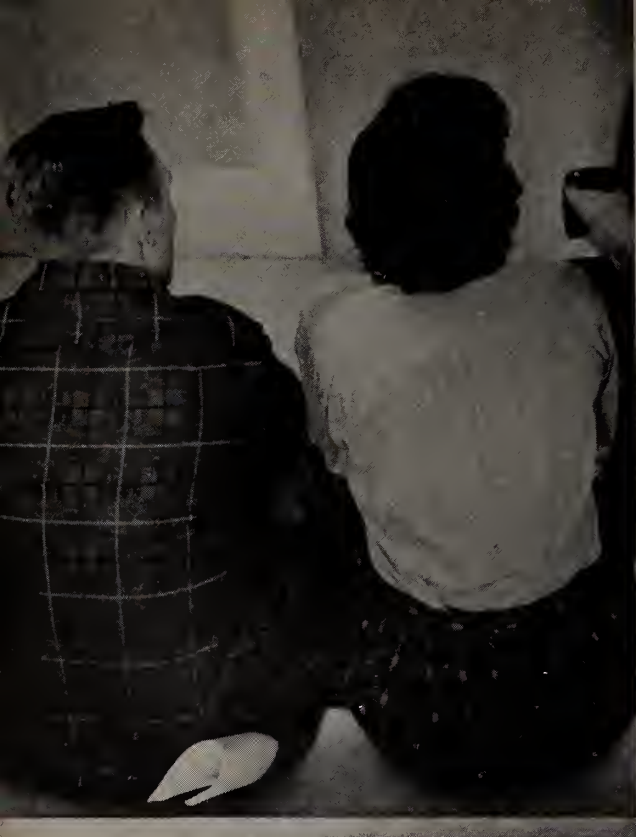
As a last item on the present list another \$50,000 should be forthcoming annually to maintain suitable student scholarship and loan facilities.

It is not intended, however, to summarize here Dr. Berry's entire confession, which makes exceedingly interesting and stimulating reading and should be on the required list for every alumnus. The important point is that the School's expanding program and increasing needs cannot be met on the present basis and at the present rate of increase in income.

This is the concern of the alumni. Not only must the pattern of their support, which has been so amazingly well established in the last three years, be continued and enlarged; still other efforts are called for that no other group of persons is better fitted to make. These must consist in general of a tactful instruction of industry in the art of giving. For industry, shrewdly but not always intelligently generous, needs guidance in the way to get more lasting value out of its dollar investment in the promotion of health. It must be taught to support education at its base rather than at its apex.

All organized medical education is in need of financial support, some schools more desperately than others, and much of it must come from and through their graduates. The alumnus of Harvard Medical School, as much as any in the nation, is entitled to his personal loyalties, and he may be justly proud of having graduated from an institution that has produced one out of ten of the physicians serving as full-time faculty members in the 80 medical schools of the country. He may take further satisfaction in the knowledge that of Harvard University's 12 Nobel laureates, 6 are identified with the School whose future he is asked to help assure.

J. G.



They also serve who only sit and wait

Internships

At nine o'clock in the morning of March 14, the class of 1955 assembled to hear the results of the National Matching Plan. Some came in quiet confidence, others in fear and trembling. Countless feet were shuffled and numberless cigarettes were smoked. At nine-twenty the Dean and acolyte mounted the marble stairway. There was a brief and anxious prelude. Then in sealed envelopes, destiny was distributed. The results ranged from ecstasy to dismay. Only eight were unmatched and before noon all but one of these were safe in the bosom of Aesculapius. The rest is history. The next day—many beers and several bull sessions later—the class of 1955 returned to the routine job of finishing the fourth year. In the pictures on these pages and on the cover, photographer Walter Fleischer has captured a few of the fleeting moments when 1955 trembled on the brink of the future.

“... \$50 a month, plus room,
board, and laundry!”



Pandora's box?



Dear Mother and Dad—
got the job at



"But Daddy, do they have good baby sitters in New Haven?"

Five sons of
H.M.S. Alumni
begin the new
generation



Karl E. Humiston, Tacoma, Washington (father H. W., '25); Edward M. Palette, Los Angeles, California (father Edward C., '29); LeRoy Long, Oklahoma City, Oklahoma (father LeRoy D., '21); Peter H'Doubler, Springfield, Missouri (father F. T., '15); Stephen E. Hedberg, Worcester, Massachusetts (father Herbert E., '29).

Three Thousand Years Ago *

John Homans, '03

It is doubtless customary, on such an occasion as this, to offer a discourse relating to some problem in medical education, with reminiscences, discussion of present day conditions, and a touch of prophecy. Unfortunately, I know little or nothing about education and even if I did I would not inflict my supposed knowledge on this gathering. Nor can I do as Fritz Irving did. You may recall that Aesculapius pursued him to the

roof of the Lying-In Hospital at sunrise and there interviewed him. Well, he might do that to a full Professor in good standing, but he wouldn't do it to me, a Clinical Professor—the very lowest sort of human Professor, and *Emeritus* at that, *Emeritus*, as you know, meaning “worn-out.” And so, pondering this problem, I have dwelt on it during those hours when some of us, as we grow older, no longer sleep the sound and in-

nocent sleep of youth; the hours when the mind becomes abnormally active and we think especially of all those things which we would like to have said during the day.

During these four A.M. wanderings, I found that my thoughts were attempting to follow Aesculapius into the past, wondering what he was like and how he actually practiced medicine. I was stimulated to dip into sources of which I will tell you more presently. First of all I discovered to my astonishment that this is his 3000th birthday. Naturally there are uncertainties about this date. There is the difficulty which all ancient peoples must have experienced; counting backwards before the Christian era—a sort of “Through the Looking Glass” method which must have been very confusing. At New Year's parties in the days of Aesculapius, for example, when drinking to the coming year one must have said, “Well, ladies and gentlemen, good-bye to 1053 and here's to 1052.” However, as I shall show you in a moment, there is certain evidence placing our Aesculapius very accurately in the Trojan War and I assure you that no one can prove that any other date will do. He was born 3000 years ago in January, 1052 B.C.

About his parentage there is, of course, a traditionally romantic mystery. His mother, the nymph Coronis, was loved by Apollo—in a glade, naturally. You think of a nymph as a sort of fairy who lives in the sea, in a wood, even in a tree or a stream.

* Dr. Homans died on June 7, 1954. This talk was presented at a meeting of the Aesculapian Club in Boston, January 10, 1948, and is printed here for the first time.



“... apprenticed to the Centaur Chiron...”

Actually, in both ancient and more recent literature, every attractive girl is apt to be referred to as a nymph—beautiful, charming and with sex appeal, of course. You will recall, perhaps, the lines of the 18th Century British poet: “Ten cups of tea, with grief I speak, had now constrained the nymph to leak.” Nymphs have always been very human, and Coronis was no exception. Though loved by Apollo, she is said to have been slain by him when he found that she had been so unfaithful as to marry a mortal. Apollo then delivered the child he had fathered, from the womb of his mistress after her death—a Caesarian section 1000 years before Julius Caesar, as the obstetricians should note. Thus tradition has it, but I submit to you that the story is only a polite fiction. Coronis was a girl of good family in the town of Tricca in Thessaly—known as the land of horses. She was deeply in love with a young man, without money, of whom her parents disapproved. Indeed, they had betrothed her to a rich, eligible, elderly friend of the family. However, in the spring of 1053, Coronis found herself in trouble. She was in a family way, and, of course, went right to her mother. It was then given out that she was beloved of Apollo, a matter in that day very creditable to all concerned, and the marriage to the elderly suitor was soon carried out. The elderly suitor didn’t mind and Aesculapius was the result. We can keep his divine parenthood in the background from now on. Aesculapius, in later life, used to refer to it rather humorously if he felt like it, speaking of “my old man, the Sun God,” though he wouldn’t permit others to do so.

But it is fortunate, as it turned out, that Apollo’s name was chosen. For Aesculapius was thus naturally destined for medicine. He was given a first-rate education and in due time was apprenticed, as we learn, to the Centaur Chiron, who was thought to have superior knowledge of all the best herbs of the day. Well, you know what a Centaur was. Isn’t this

really a way of saying that Aesculapius was trained by a successful, busy practitioner who spent most of his life visiting his patients on horseback? I think so. When next we hear of our hero he is chief of one of the great Greek Clinics, that of Cos, which we know as the headquarters of Hippocrates, some hundreds of years later. Hippocrates is said to have been the eighteenth successor of Aesculapius in direct line.

Medical practice in ancient Greece was carried on not only by general practitioners, but in great clinical centers, temples as a rule, often with mineral springs, very much like the great inclusive groups of today, as at Battle Creek or the Mayo Clinic. There were specialists in ophthalmology, in orthopedics, and in pediatrics—observe the Greek origin of such titles. There was active rivalry between these centers and much wealth to be obtained. Actually Aesculapius is accused by Plato of charging large fees and thinking too much of money. He was in the prime of life at the time of the great Trojan War and so we hear without surprise that he was invited to be Chief Surgeon of the Greek Expeditionary Force during the last years of that ten year siege.

Now I must take you back to the beginnings of this war. In 1012 B.C. a beauty contest was held to choose Miss Asia Minor for that year. The affair was widely advertised. Preliminary selections were made in Greece, the Aegean Islands, Syria, and other countries bordering on the eastern Mediterranean. At last the choice was narrowed to three such perfect creatures that they have come to be regarded as the Goddesses Hera, Athene and Aphrodite. Troy was made the scene of the finals, and Paris, the gayest young bachelor of that city, was selected to choose between them. Paris was a son of Priam, a prince in his own right, and brother of Hector. He gave the prize, of course, to the girl who has gone down in legend as Aphrodite, and then in his characteristic way made violent love to her. She would

have none of him, being already engaged, but to console him promised that he would soon captivate the most beautiful woman in the world. This suited Paris very well and, in his travels about the Aegean Islands and its shores, he kept his eyes open. In Sparta, he met Helen, the stunning wife of Menelaus, and it was love at first sight. Helen ended by deserting her husband and small daughter, eloping with Paris to Troy. Menelaus, as you know, was one of the great men of Sparta, brother of Agamemnon who, in effect, was King of Greece. Naturally, the Greeks, a warlike lot, rose in wrath. The Trojans wouldn’t return Helen and the ten years’ war began. It was only a siege in a broad sense. Troy was at the head of a confederacy of all Asia Minor. And so the Greek invaders had much on their hands. The fighting dragged on until the time of which Homer tells us, when a supreme effort was made. All the military and naval services were reorganized and it was then that Aesculapius was invited to become chief surgeon of the G.E.F.

Covering the last phase of the siege, we have Homer’s account in the *Iliad*, in which Aesculapius and his sons, Machaon and Podalirius, are mentioned only rather incidentally; but fortunately there are other sources, in the form of manuscripts, more or less fragmentary, but of great interest to scholars. One such has for long been handed down in my family. When I tell you that the author is recorded as Ion Homer you will guess that the name is a corruption of Homans and will understand how I happen to have access to it. The story is called the Psorad, a name evidently related to the Greek Psora, or itch. But whether this is an allusion to an unfortunate physical weakness of my ancestor, or refers figuratively to his itch to impart knowledge, is unknown. In the pronunciation of Psorad the P is silent, as in pshrimp, to subdue expectoration. Actually, the work is a sort of medical history of the siege and purports to contain quotations from Aescu-

lapius's own memoranda. It is a very human document, supplementing the *Iliad*.

From such sources, we learn much of the medical as well as the strictly military and naval organizations in the G.E.F. Subdivisions of the surgical services existed, notably an orthopedic division. A sanitary problem was recognized. Indeed this latter service comes at once to the fore in the *Iliad*. It will be recalled that Agamemnon, brother of Menelaus, was the commanding general. In the course of one of his local campaigns, or raids, to support the troops in Asia Minor, he carried off and appropriated for himself a beautiful young woman named Chryseis, the daughter of a priest of a temple of Apollo. Agamemnon refused a ransom from her wealthy parents. And so Apollo smote the troops with a pestilence, or so it was believed. Conditions were so bad that the matter was fully discussed at a meeting of the General Staff. The various minor leaders had their say, Achilles, Patroclus, Odysseus, and others. Feeling ran high. Of course, Agamemnon was urged to give up his girl. He replied that she was superior to his wife in many ways—better looking, more intelligent, a better talker and housekeeper; said he wouldn't give her up on any account—a very imprudent statement on his part because it got back to Clytemnestra in Sparta. She not only took up with a neighboring kinglet, but stabbed Agamemnon in his bath upon his return home. But to return to the Staff Meeting. All maintained that the only hope of getting rid of the pestilence was to hand back the girl to her father. Achilles, who had acquired a girl of his own named Briseis, got particularly excited. He said that his commanding general had done all his fighting against people who were not much good anyway, and moreover that he was wine-soaked, dog-faced, and deer-hearted. If that isn't calling him a drunken, cowardly S.O.B. the Greek language must have lost its tang. At about this point old Nestor stepped in and pre-

vented any sword-drawing, though Achilles never stopped growling. Finally, Agamemnon said he would give up his girl if Achilles would give up his. Here the meeting broke up. Actually Agamemnon sent Chryseis home and at the same time detailed a strong squad of men to remove Briseis from Achilles' tent. Achilles had to let her go, but was so angry and disgusted that he withdrew from the siege, with consequences that have been fully described and of which I will presently remind you. Of all this Aesculapius was an observer. He goes on record as saying that the pestilence was really an outbreak of very concentrated chills and fever, to be expected in an army on that low coast in the autumn. He had little interest in the Apollo angle, saying that if "my old man, the Sun God" had really had it in for Agamemnon, he would have got his friend, Poseidon, to drown him on one of his local sea trips.

And now for the results of Achilles' disaffection. During his absence, Hector, Paris' brother and the best of the Trojan fighting men, got particularly busy. He organized a sortie, burned a lot of Greek ships, and did a good deal of damage in actual fighting. He engaged Achilles' best friend Patroclus in a hand-to-hand conflict and killed him, though Patroclus was actually wearing Achilles' armor. All this finally was too much for Achilles, who gave up his obstinate grouch and came back into the battle. Of course, Hector was his main object. He caught Hector outside the walls and chased him three times round the city on foot before bringing him to bay. The ensuing fight is described in the *Iliad* as a sort of duel. Achilles hurled his heavy spear at Hector, who ducked, so that the spear flew over his head. Then Hector threw, and the spear bounced back off Achilles' shield. At this point, Hector drew his sword to come to close quarters, but Achilles in some way recovered his spear—the story says that Athene handed it back to him—and Hector was at his mercy. He drove the weapon into the

joint in his armor (the armor Hector had taken from the body of Patroclus) at the root of his neck. Hector knew he must die and, being able still to speak, begged that his body be given to his aged father, Priam. But Achilles tied him by the heels to his chariot and dragged him round the city. He was in no mood to be coaxed.

Still the siege was not over and there was trouble in store for Achilles. Let Aesculapius tell the story: "I was inspecting one of the advanced dressing stations when Achilles came limping in. We all thought he had merely sprained his ankle because it was known that he had never been wounded. Indeed, it was thought that he must have some sort of divine protection. As it turned out later, he had always been nervous about his heels. It happened that as he was stepping out of his chariot, he was struck by an arrow sent over by Paris—a very long, wild shot. When Achilles realized that he had been wounded by Paris' arrow—a broken fragment was sticking out of his heel—he was angry as fury. 'Curse that pretty-boy Paris,' he said, 'I ought to have killed *all* the brothers.'"

"We didn't take the affair too seriously," said Aesculapius. "My son Mack had recently operated on Menelaus himself for an arrow wound which had just failed to penetrate his abdominal wall. The arrow had struck his belt buckle, but the barb had entered the muscle. Mack knew the trick of pushing out the barbed head with the least laceration of the tissues; and we had a preparation of some of the best herbs and wine for treating the wound. So he was getting ready to operate on Achilles when someone called my attention to the fact that the bone of the heel was involved. This, by agreement, made it an orthopedic problem, as I was obliged to admit. I told the head of the orthopedic service that he had better let us keep the case, but he would not give it up, shook his head, and said, 'We'll fix it.' So Achilles was removed to the orthopedic tent. After he had gone,

I turned to the group and said, 'You know, in our Clinic we have had a large experience with these operations. In 2000 cases (I suppose I ought not to mention such large figures, but I must do so) we have had less than one percent of fatalities. And among the last 1000 secondary aneurysms treated by operation, we have lost no patients and only 10 limbs.'

"But now I must tell you what happened to Achilles. In attempting to remove the barbed arrowhead, the orthopedic surgeon was unable to push it ahead behind the great tendon. Result, Achilles suffered pretty badly, the tendon was lacerated, and a deep irregular wound was left. Then the favorite orthopedic dressing was applied, a sort of cast or boot of mud, of which the orthopedic service was very proud, and which they now call 'plaster of Paris,' because Paris had shot the arrow. As far as I know, this is the first mention of today's familiar apparatus. Doubtless it would have worked very well had the deep wound been less complicated; but gangrene developed and in five days Achilles was dead."

Despite this tragedy, the Greeks fought on. You know of the wooden horse and its part in taking the city. Incidentally, both sons of Aesculapius were in it, as fighting men rather than surgeons. Evidently the doctors were permitted in those days to fight. And some of the fighting men were held to be good surgeons, notably Achilles himself!

After the Trojans had been defeated, the Greeks naturally celebrated. All sorts of athletic contests were held—boxing and wrestling matches, horse races, and men's foot races. Odysseus seems to have got a little tight, entering a chariot race in which a smart driver named Antilochus edged his team into a ditch on the home stretch. His finish, in third place, seems to have irritated him profoundly, particularly because the first prize was a beautiful girl put up by one of his brother generals. This is our first hint of Odysseus's amatory characteristics, of which



"... turning men into swine was a mild way of describing what occurred . . ."

more later. Following the chariot races he actually won a running race, for which the younger generation gave him lots of credit—but no girl. Later, of course, there were many dinners with plenty of wine. The Spartan group held a very special celebration. Aesculapius relates that his men kept out of such things, but says that "he could hear the Spartan cheers all over the camp and someone calling for 'Three long Agamemnons and three times three for Sparta.'"

There followed the difficult period of demobilization. The smart and favored men got an early start. Among these was our old friend Odysseus. You have heard, however, how long he was in getting home. And though my tactful ancestor, in writing the *Odyssey*, made a good story of it, he makes Aesculapius, in the *Psorad*, tell a rather different tale: "Everyone had become rather de-

moralized during the years away from home. It was not surprising, therefore, that Odysseus and his men stopped over at a summer resort on one of the Aegean Islands. Here they met Circe who had collected a most attractive household of girls from round about. Aeneas ran into just the same sort of thing but he called the girls 'Syrens.' Odysseus certainly *ought* to have avoided Circe's establishment since he had put many such resorts off limits during the siege. Circe's turning the men into swine was a mild way of describing what occurred. Actually, Odysseus and his fighting men took in, as well, another resort run by a lady named Calypso and ended up at my clinic at Cos, where we finally got them in order and sent them home. I never thought that Penelope and the other womenfolk swallowed the story they told, but of course we kept a strict

professional secrecy about it."

And now perhaps you would enjoy hearing something of the actual medical practices of those ancient days as Aesculapius describes them to me. His notes, contained in the *Psorad*, are fragmentary, of course, but we can piece them together. Undoubtedly he had a tremendous practice. He tells of going over to Rhodes from Cos in consultation. Said he, "My colleague Telephonus, a very good man, came over himself to my clinic at Cos one morning and proposed that he should row me over in his speed boat to see a patient. I was glad to do this and it was arranged that my wife, Epione, should follow me later in the day to bring me back. It was a nice, still day and we came in sight of the Colossus at just the busiest hour in the morning. You must understand that the Rhodes people were very proud of this immense statue though they had had to narrow the entrance to their harbor so that its legs could straddle it. This made the traffic pretty difficult and a police officer was stationed under one of the legs. Well, Telephonus had a little flag with serpents on it at the bow of his barge and though the officer had just halted the in-bound traffic, he told his oarsmen to keep going. Of course we heard a whistle and alongside came another officer, who said, 'What's your hurry, doctor?' motioning us to pull in under the right leg. Of course Telephonus was very polite and introduced me, saying that he had brought me over from Cos to see a patient. Whereupon the officer said, 'Well, I'll have to report this, but you can see the Chief if you like.'"

"By the time I was ready to go back, my wife had turned up and we rowed home. I had a fast 8-oared barge and we got back to Cos at about the fifth hour after noon. As I was steering into the harbor, we tangled with all sorts of craft. I suppose I kept muttering curses and finally had to yell to the oarsmen to

back water, to avoid running down a fat man sculling across our bow carrying lettuce. 'Kunos üios,' I yelled, this being a variant of Achilles' remark to Agamemnon, and my wife said, 'Aesculapius, if you talk like that, you can row without me. Your language gets worse and worse.'"

Perhaps you will be interested also in some of the ethical problems of Aesculapius' day. At that time, Persia, Arabia and Egypt were "the East" and the far Mediterranean region was "the West." Greece and the Aegean Islands were "the Middle West," decidedly young compared with the conservative East. But the surgeons of the Aegean region were a pushing lot, and, as I have told you, Aesculapius has been accused of being somewhat "on the make." He tells of his dealings with Polyposis, physician to the Royal family of Egypt. He says, "A message came to me by express barge that Polyposis was sending Rameses IV to my clinic at Cos. Rameses had been found unconscious early one morning on the floor of a new temple he was building at Thebes. When discovered by the workmen, a fragment of masonry lay beside him. So it was supposed he had received a head injury. He came to pretty soon, but had gradually become somewhat queer and irresponsible. Polyposis believed he might have a fractured skull, but no one in Thebes dared to investigate, so it was put out that he was taking a trip to the northwest to get away from the hot weather. Polyposis then set out with him for my clinic at Cos. We were pretty keen on head injuries, and of course Egyptian Royalty was decidedly worth cultivating. Unfortunately the Daily Clay Tablet got wind of the matter and announced that Rameses IV was coming to the clinic. We couldn't seem to stop that sort of thing, though my name wasn't mentioned."

"You will hardly believe it," Aesculapius continues in his diary,

"but after all this fuss, Rameses never reached the clinic. The surgeons in Crete and Cypress, even nearby Rhodes, apparently got wind of the matter and sent out fast ambulance barges to meet the Egyptian boat. They represented that it would be dangerous to let Rameses travel any further but actually I believe that the Cypress group made Polyposis the offer of a perfectly unheard of percentage if he would stop off there. I know only that Rameses never reached Cos. Very unscrupulous some of our middle-west practitioners are."

I find only one more matter in these extraordinarily human notes of Aesculapius which I feel justified in quoting at this time. He says: "I had been up trout fishing in northern Thessaly late one spring and came back to find my son Podalirius much upset. Podalirius was a pediatrician and a very good one. He said, 'I don't know what has come over the infant business these days. The mothers don't nurse their babies any more, and no one is even interested in breast milk either. Everyone is feeding 4-6 months' old kids on ground up turnips, cucumbers, lettuce (of course) and minced goat's flesh and ham. Why, the little beggars are tearing away at all sorts of food which we used to think required teeth to chew. They'll be giving them egg shells and ground glass next to toughen their gums.' 'Poddy,' I said, 'don't you know a swing when you see it? There are long swings, lasting 25 to 50 years, and short ones, covering only 5-10. This looks like a short one to me, but you never can tell. Keep your shirt on,' I said. 'In another few years the mothers may be nursing their children until they are wearing long pants. Everything eternally goes round and round and will undoubtedly continue to do so to the end of time.'"

I rather think, gentlemen, that Aesculapius, had he practiced in these modern days, would still have been at the head of his profession.

The Medical School Curriculum

Mark D. Altschule '32

1 An Independent Department of Medical Psychology For Instruction in the First Year

During the past three decades, those branches of clinical medicine that depend on laboratory science have undergone extraordinary development. This progress has increased the well-being of those to whom its benefits are available, but it has also created or augmented certain problems pertaining to the practice of medicine—problems that concern the proper relation between laboratory medicine and medicine based on other than physico-chemical knowledge.

The practice of medicine consists (and probably has always consisted) of the use of (1) a small proportion of specific information gained through observation* and (2) a large proportion of intelligent guessing based on a broad knowledge of the properties of the body and the mind. The application of physico-chemical science to medicine has greatly increased the former and somewhat decreased the need for the latter. Nevertheless, most of the medicine that is applied in practice still consists of material that has not yet been analyzed—and certainly has not yet been taught—in terms of these physico-chemical considerations; it comprises beliefs, impressions, and habits of thought that are considered justified by experience but have not yet been validated by controlled experiment. In other words, the physician must still do a good deal of guessing. (The fact that this guessing can be made more accurate through the use of knowledge derived from the non-physical sciences will be discussed below.) Obviously, although the ability to make effective guesses depends to some extent on the use of validated information, however incomplete, it depends even more on certain features of the physician's point of view.

* Much of this specific information derives from laboratory experimentation, but a good deal has been obtained through observations made in the course of practice itself. Among examples of the latter type of information are the ancient Chinese knowledge that ashed seawood cures goitre; the Hippocratic knowledge that veratrum (hellebore) causes convulsions and may cure melancholia; the South American Indian knowledge that cinchona bark cures some fevers; and the English folk knowledge that digitalis cures dropsy and that having cowpox prevents getting smallpox. The sound specific information provided by the laboratory sciences of course constitutes the bulk of present-day medical knowledge.

The point of view currently emphasized in medical teaching must be considered a narrow one—one so influenced by physico-chemical considerations that it minimizes the socio-psychologic aspects of the broad problem presented by any medical case. In many instances this preoccupation with the physico-chemical aspects of medicine makes it impossible to formulate intelligent guesses about patients, for two reasons: (1) By stressing specific organs—and sometimes even specific collections of molecules—it relegates the organism itself to the background; and (2) since physics and chemistry of themselves have not yet thrown much light on man's behavior, medicine that is based chiefly on the physico-chemical aspects of illness inevitably bypasses the behavioral component of clinical practice.

The reasons why clinical teachers overemphasize physico-chemical medicine undoubtedly vary in different situations. Among the responsible factors are probably the following: (1) laboratory data are reassuringly definite, and hence abnormalities are easily recognized; (2) obtaining such data requires merely the use of a syringe and a needle, in contrast to the more difficult and subtle methods of clinical examination; and (3) these data are comfortably familiar, in that they resemble the content of college laboratory courses. In other words, medicine based on physico-chemical science does not require either teacher or student to use many radically new concepts.

Another group of factors relates to the personal motivations of many of the men who do clinical teaching. At the present time, academic promotion at Harvard, as at some other schools, depends not on the caliber of a man's teaching but on the quantity and quality of his research. Men in academic medicine often achieve the security of either a permanent faculty appointment or (at a younger age) an important foundation fellowship on the basis of research completed or planned—and the quality of their teaching is a minor consideration. The awareness of these possibilities understandably increases the interest in research that is inherent in many such men and thereby lessens their interest in clinical medicine. A situation is thus created in which the clinical faculties of young teachers do not develop and may even atrophy. Such of these teachers as are responsible for section work in clinical subjects may find themselves arriving late, leaving early, or at times not appearing at all at clinical sessions because they must complete experiments that they consider important to their

careers. This circumstance not only impairs the clinical teaching of students but also retards the teachers' own clinical education—which of necessity is largely acquired through experience.

Not only is the clinical teaching in sections likely to suffer as a result of this situation, but other clinical exercises also may fail to achieve their purpose. For example, a common sequence of events at grand rounds is as follows: A patient's history is presented in detail, with more attention devoted to the laboratory data than to the other findings; the patient is wheeled in and, after a brief comment to the effect that he doesn't show much, is quickly wheeled out; one of the younger staff men is then called upon and presents a remarkably learned, detailed, and well-organized discussion of the fate of some ion in the body. (The only connection between the patient and this dissertation is that the patient provided the blood or urine on which the tests were made.) The procedure is occasionally interrupted by a statement from some slightly older staff man about the necessity of considering the patient as a whole; this exhortation is heard with nods of approval, and the discussion continues as before, terminating with all missing ions accounted for as the clock ends the hour. Although it is valid to discuss only one aspect of disease in certain types of special exercises (the clinico-pathologic conference, for example), such narrowness lessens the value of clinical sessions; grand rounds conducted in this fashion can hardly be considered an effective clinical teaching exercise.

Some medical educators consider that clinical medicine as taught today has become or is in danger of becoming dehumanized. These men believe that the patient is not simply a collection of aberrant molecules or even merely a sick man in a hospital bed. They regard man as a biological organism in equilibrium with his physical and social environment; they consider that illness not only changes his internal environment but also modifies, in complex and subtle ways, the equilibrium between him and his external environment. The contagiousness of some diseases compelled physicians to think along these lines years ago. In earlier years, in fact, the better practitioners were usually concerned about the effects of illness on the emotional and economic status of the patient's family and community. These factors are still of immediate importance, in that they determine the environment in which either the disease or the convalescence must be treated. The effects of such environmental changes on the patient himself, and in particular the effects of worry about becoming a financial or physical burden, can significantly influence the course of an illness. It is true that many physicians learn these facts sooner or later—largely through first-hand observation during practice; it is also true that they hear some discussion of such matters in the course of their medical studies. However, what information they receive as students is presented briefly, superficially,

unsystematically, or inexpertly—and this fragmentary presentation of these important matters is largely responsible for the present imbalance in clinical teaching.

The remedy is not to teach less about the physico-chemical aspects of medicine, but rather to change the students' attitude toward these factors by presenting them as only one part of the whole. The students should be made equally familiar with any material in the fields of psychology, sociology, and anthropology that is applicable to medicine. This should be done in the first year, when basic data and attitudes are presented. That the practice of including lectures in medical psychology in the first-year curriculum has failed to provide the students with this necessary background is probably owing to two conditions: (1) too little time is expended on too meagre a content, and (2) such courses are usually not taught by experts. These lectures are given by members of the Department of Psychiatry—men whose training has of course fitted them for their clinical functions but naturally has not been sufficiently broad and detailed in psychology, sociology, and anthropology to make them experts capable of giving a balanced account of what is known in these other, equally specialized disciplines. (An analogous situation might occur in medicine if the Department of Physiology were disbanded and the physiology course taken over by internists.) The inadequacy of this first-year course is attested to by the fact that efforts have been made to reintroduce similar basic material in the third and fourth years. Such sessions represent laudable efforts, but they are instituted too late to be maximally effective and often suffer from the same inadequacies that characterize the first-year course.

The current situation would be greatly ameliorated by the establishment of a strong, independent department of medical psychology consisting of expert psychologists, sociologists, and cultural anthropologists, with about ninety hours at their disposal. Such a course should resemble a good college course in elementary psychology but should also emphasize those elements that would be specifically useful in medicine—i.e., statistics, the formulation and evaluation of questionnaires, and the social aspects of psychology. The course should provide for laboratory exercises on these topics as well as on the basic aspects of psychology. With respect to the latter, much of the laboratory work should exemplify the various processes involved in mental activity; it should be carried out on human subjects for the most part but should employ animals where necessary.* The laboratory work should also be designed to test some of the hypotheses used by current psychologies.**

* As in the demonstration of regressive behavior during stress (see Munn, N. L., *Handbook of Psychological Research on the Rat*. Boston: Houghton Mifflin Co., 1950, pp. 454 ff.).

** As in the study of the Freudian hypothesis of repression (see Merrill, R. M., The effect of pre-experimental and experimental anxiety on recall efficiency. *J. Exper. Psychol.* 48: 167, 1954).

Through the teaching of such specialists the students not only would be enabled to broaden their point of view but also would acquire knowledgeably-selected concrete information on which to base their own thinking. (Some of this information also would be of practical use in specific situations encountered in the clinical years of the curriculum.) Another benefit of this program would be that since such a department would undoubtedly engage in research it would thereby attract the lasting interest of some of the more active minds among the students. And finally, after some years, this new curriculum would create a new type of clinical teacher—one whose teaching and practice would effectively exemplify a broad knowledge of the human organism.

The creation of a Department of Medical Psychology would of course entail considerable expense. Nevertheless, this money would be well spent, since the establishment of a first-year course in psychology (including social psychology and cultural anthropology) would provide a means for the rapid, well-organized definition of the role of these students in medical teaching. Naturally, no medical school could assume such a burden; the schools are now barely able to maintain their present activities. Perhaps some foundation might be interested in supporting a ten-year experimental program of the type discussed above. There are indications that some foundations are much interested in encouraging socio-psychologic studies in the field of medicine.

II *Basic Medical Sciences as an Introduction to the Teaching of Psychiatry*

As was mentioned in the previous section, clinical medicine is not a science; nevertheless, most of the diagnostic and therapeutic advances of recent years have resulted from the application of physico-chemical data or concepts to clinical problems. The teaching of clinical subjects also is largely based on these data. Although clinical medicine can be taught as a form of natural history—i.e., as a collection of diseases—the understanding of the processes and manifestations of disease requires knowledge contributed by the basic sciences.

Knowledge of this sort is not utilized as extensively in psychiatry as in the other clinical subjects. This is owing to several circumstances: (1) psychology, the most important of the sciences that are basic to psychiatry, has not developed as rapidly as the physico-chemical sciences; (2) psychology is consequently more beset by conflicts among hypotheses than are these other disciplines; and (3) few psychiatric teachers know as much about psychology as most medical and surgical teachers know about the physico-chemical sciences. The introduction in the first year of a broadly-conceived course in psychology, given by a strong independent department of psychology, would ultimately obviate the third of these factors and would enable both students

and teachers to deal better with the first two. The development of such a department would remove still another source of difficulty: at present, teaching in psychiatry is preceded by lectures in psychology given by the psychiatric teachers themselves; inevitably they choose from among the controversial concepts of psychology only those that support their own clinical beliefs. A similar situation might exist in internal medicine if, for example, a proponent of one of the controversial explanations of acute pulmonary edema were empowered to decide what the students were to be taught about the basic physiology of the circulation. Such a circumstance would be considered objectionable in internal medicine; there is no reason to regard its counterpart as satisfactory in psychiatry.

There are other defects in the relations between psychiatric teaching and the basic sciences. Most teachers in psychiatry (at least locally) know as little about the physico-chemical sciences as internists and surgeons know about psychology. The belief expressed by a few psychiatrists that physico-chemical science has nothing to contribute to psychiatry represents so specialized a point of view as to be beyond the scope of the present discussion. Most clinicians—psychiatrists and others—will agree that teachers in all branches of medicine should use all pertinent data—physico-chemical and socio-psychologic. The previous section discussed ways of broadening the background of internists and surgeons. This section will suggest that the failure of psychiatric teachers to use the data of the physico-chemical sciences also can be remedied—but through a different and much simpler course of action.

It is possible, by expanding and adding to the present second-year course in neuropathology, to provide a body of neurophysiologic data that not only would enrich psychiatric teaching but would ultimately narrow the gap between clinical psychiatry and the rest of medicine.

The basic material of neuropathology contains much that relates to thinking and behavior. In addition to the behavioral aspects of such diseases as syphilis of the brain, pellagra, cerebral avitaminosis, and drug (including cortisone) psychosis, other subjects of a more general nature already are or could be covered in this course. The following topics suggest themselves:

- 1) functions of the hypothalamus and the autonomic nervous system in disease
- 2) functions of the archepallium in disease
- 3) functions of the temporal lobes in disease
- 4) functions of the frontal lobes in disease

To these might be added, in a logical sequence, the following:

- 5) disorders of conditioned reflexes
- 6) disorders of learning
- 7) effects of disease on personality, and vice versa
- 8) effects of social environment on personality, and vice versa

The first four topics above, though fairly well covered in the first two years, are not sufficiently emphasized in clinical psychiatric teaching. Perhaps they would be more extensively used to illuminate clinical phenomena if they were integrated with the rest of psychiatry through the use of Topics 5 and 6. Some teaching of Topics 7 and 8 is currently being done; however, this teaching seems, at least in some instances, to be based on a limited appreciation of the large—and somewhat controversial—literature. On the other hand, Topics 5 and 6* seem to be almost entirely ignored locally. This situation can be remedied only by instituting the curricular change recommended in the first section—i.e.,

the establishment of a Department of Medical Psychology for instruction in the first year. As regards the integration of neuropathology with psychiatry, this can easily be accomplished by making relatively small changes in the present course of study.

In the first section it was shown that medicine and surgery could be made to draw nearer to psychiatry; here it is indicated that psychiatry can begin to draw nearer to the rest of medicine.

* Some of this material is discussed in: (Altschule, M. D.) Physiologic Psychology of Neurosis. *New England J. Med.* 251: 476, 1954.

"Life is Short and the Art Long"

Elsewhere in this issue appears a letter whose author, a member of the class of '41, laments the fact that all too frequently the burden of material presented in the *Bulletin* is "light and sweetness." The preceding article by Dr. Altschule suggests that the curriculum of Harvard Medical School might be advantageously modified and that the student perhaps does not live in "the best of all possible worlds." This, we believe, is healthy and possibly constructive criticism. To show that there are two faces to the coin, however, we herewith print an opinion by Dr. Perry Culver ('41). The presentation of two viewpoints by equally thoughtful observers, we believe, serves a real purpose. In subsequent *Bulletins* we hope to present discussions of other pertinent issues from dissimilar points of view.

This Hippocratic Aphorism chiseled on a wall of one of the Harvard Medical School buildings suggests that medical education is devoted to the art as well as the science of medicine. If the art of medicine be defined as encompassing the study of an individual and his environment with respect to his disease, then the ancients were aware of something more in the development of a physician than mere knowledge of disordered cells and the classification of disease.

Coming to the twentieth century, it is worth noting the fiftieth anniversary of Dr. Richard Cabot's experiment in developing the art of medicine at a time when the science of medicine was on the threshold of great advances. In 1905 at the Massachusetts General Hospital, when Dr. Cabot was concerning himself with perfecting the methods of diagnosis, he recognized that his diagnosis remained slipshod and superficial in many cases and found himself constantly baffled when it came to treatment. "Detailed individual study of the person, his history, circumstances and character were frequently essential if one was to cure him of a headache, a stomach-ache, a cough, or any other apparently trivial ailment."¹

¹ Cabot, R. C.—*Social Work: Essays on the Meeting-ground of Doctor and Social Worker*. Boston: Houghton Mifflin Co., 1919.

An eager, pioneer social worker was found to supplement Dr. Cabot's scientific medicine. From this simple beginning, Medical Social Service has developed into an important aspect of total patient care. Subsequently, the social history and social service rounds have become an integral part of the medical student's educational experience.

In spite of this, the art of medicine too often appears to play a poor second fiddle to the scientific attitude in our present day medical curricula. Awareness of this imbalance has bothered medical educators from time to time. The article by Dr. Mark Altschule in this issue of the *Bulletin* refocuses attention on the problem and merits discussion because of some specific suggestions for overcoming weaknesses in our system of medical education.

There are, however, certain points in Dr. Altschule's thesis with which one might disagree. The sociopsychologic aspects of medical education and research are in a much more vigorous state of growth than is suggested. A recent report by a faculty committee on the Behavioral Sciences at Harvard has shown a considerable social science ferment in the Schools of Public Health and Medicine. At the present time more than twenty behavioral scientists are working more or less full time in the health area. The lack of funds is the critical need in delaying further development along these lines.

Next, one might question whether the abrupt introduction of a formal ninety-hour course in medical psychology by an independent department is the most effective way of achieving the goal which all agree is desirable. The addition of more hours to an already crowded first year schedule might exceed the tolerance of the student who even now has little time for contemplation to reassess his values of life as he grows in medical knowledge. If, on the other hand, ninety

hours of the presently scheduled instruction material were sacrificed for this proposed course in basic psychosociology, it would seem to some at least that undue emphasis was being given to an area which is still in a development phase.

The establishment of an independent department of medical psychology and separate course of instruction seems to run counter to the current trend to decompartmentalize medical education. The new course in Medical Science at Harvard Medical School has demonstrated how successfully the various basic sciences can be integrated into the study of the organism as a whole. When this course has evolved into a pattern for basic science instruction for all medical students, this would be the logical place for teaching the fundamentals of behavioral sciences as a part of the whole. In addition, if two or three behavioral scientists were appointed to faculty rank, they could coordinate teaching and research efforts in this area throughout the medical school.

Another solution to the problem might be the requirement of certain fundamental courses in sociology, psychology and anthropology at the college level. Such a move would counteract the undesirable imbalance in the premedical training of many students who mistakenly believe that their chances for admission to medi-

cal school are improved in proportion to the number of courses in natural sciences.

Since a broad educational background and varied life experiences would seem to make a student more adequate to practice the art of medicine, the admission committees of medical schools might well limit the number of natural science courses at the college level. Moreover, in the selection of candidates, the person who has "lived life" should be preferred to the "grind," other things being equal. If these qualifications were emphasized to the premedical student, he should come to medical school better prepared to maintain a healthy balance between the scientific attitude and "medicine based on other than physico-chemical knowledge."

In conclusion, while the need of better techniques for teaching the behavioral sciences is recognized, one must not be too gloomy about the attitude of the present day medical students. Personal experience with students at the beginning of their clinical work has shown them to be acutely aware of the socio-psychologic aspects of their first patients. Thus, in spite of little or no formal training, the art of medicine appears as an instinctive attribute of the young physician. "Life is short and the art long."

P. J. Culver

Remember these Dates

Associated Harvard Clubs

**May 13 - 15 incl.
Cincinnati, Ohio**

Alumni Day

**May 27
Boston, Massachusetts**

Class Day

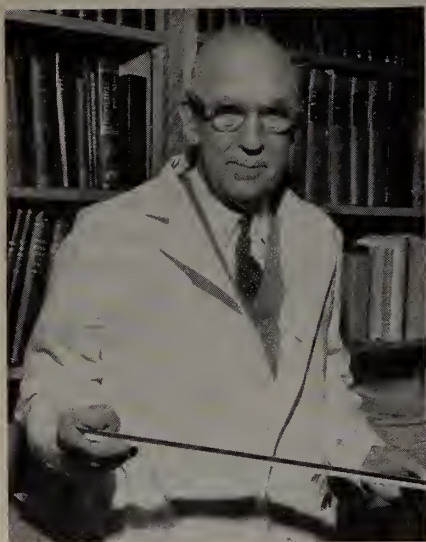
**May 28
Boston, Massachusetts**

Alumni Dinner at A.M.A. Convention

Speaker: David T. W. McCord

**June 8
Atlantic City, New Jersey**

The First Levine Professor



Dr. C. Sidney Burwell, formerly Dean of the Medical School and now Research Professor of Clinical Medicine and Physician at the Peter Bent Brigham Hospital, has been appointed the first Samuel A. Levine Professor of Medicine at Harvard Medical School. Dr. Burwell is the first to occupy this newly created chair made possible through the

generosity of Mr. Charles Merrill, senior partner of a New York investment firm, who established the position in honor of Dr. Samuel A. Levine ('14), his physician and "warm personal friend." His purpose in so doing, as noted previously in the *Bulletin*, was to strengthen research and teaching in cardiology and cardiovascular disease at Harvard Medical School. However, under the terms of Mr. Merrill's endowment, the Levine Professor need not always limit himself to a single area of human health, thus greatly augmenting the ability of the Faculty of Medicine to implement its functions more effectively toward the acquisition of new knowledge in other related fields.

Dr. Burwell was graduated from the Harvard Medical School in 1919, interned at the Massachusetts General Hospital, and served there as a research fellow in the laboratory of Dr. Paul D. White. He was resident physician at Johns Hopkins Hospital and, after a period of study in Europe and England in 1924, returned to

Vanderbilt Medical School where he subsequently became Professor of Medicine and head of the Department of Medicine. Dr. Burwell returned to the Harvard Medical School in 1935 as Research Professor of Clinical Medicine and Dean of the Medical School. He held the latter post until 1949 when he resigned to devote full time to teaching and research at the Peter Bent Brigham Hospital and the Boston Lying-in Hospital. Dr. Samuel Levine, speaking from 25 years of association with Dr. Burwell as a professional colleague and friend, expressed his satisfaction at this choice for the first Levine Professorship. "Dr. Burwell makes an ideal professor of medicine," he said. "As a teacher, he has great clarity of exposition and is masterful in his presentation of facts. His research work in the field of cardiovascular disease has been of high calibre and his studies of circulatory adjustments accompanying pregnancy and of constrictive pericarditis have been outstanding."

The Stanley Cobb Professorship In Psychiatry

Recently the University has announced the creation of a fund for the development of teaching and research in psychiatry. The fund is to be named in honor of Stanley Cobb, Bullard Professor of Neuropathology, *Emeritus*. The principal use of its income would be to support a professorial chair in psychiatry named for Dr. Cobb.

Because psychiatry is a specialty of comparatively recent development, it has less departmental resources than some others and no endowed chair. For that matter, very few medical schools have chairs in psychiatry, Johns Hopkins being a notable exception with one for the head of its department.

The acquisition of this new professorship will raise psychiatry to a position of equality with those de-

partments already possessing endowed chairs, but its effect on teaching and research will be even more profound than its effect upon morale. An endowed chair provides leadership and tradition with a means of paying for them. The title reinforces the authority of the departmental head which should make easier his problems of coordinating the work done at the various hospitals where the medical school maintains teaching services. Some of the funds for research should be controlled by the University (rather than hospitals) to use where it sees fit. Most of the money now available for investigative purposes is labelled as to where and for what it shall be used.

The tradition of some of Harvard's best known professorial chairs may not be long as compared with Euro-

pean ones, but is nevertheless great. Many of the advances in American medicine are associated with the names of occupants of those chairs; much of the reputation of the medical school has stemmed from their efforts. This same tradition will undoubtedly spring up around the Stanley Cobb Professorship to make it sought after by scholars in the field and to enhance the standing of both this department and the medical school.

The selection of Dr. Cobb's name for this chair is an extremely fortunate one because of his leadership in psychiatry. It might be worth while, in this regard, to review some of his accomplishments. Many of us whose acquaintance with him has been limited to passing him walking quietly along the corridors at the

Massachusetts General Hospital have had little idea of what he has done. Here is his record. He was born in 1887, graduated from Harvard College in 1910 and the Medical School in 1914. From then on he began a career, partly of study and partly of teaching, which embraced many fields and covered many years. Added together and correlated with his subsequent achievements, it demonstrates the value of a broad background of training rather than one of early specialization. He spent a year as a surgical intern at the Peter Bent Brigham under Dr. Harvey Cushing, a year which he greatly enjoyed. This was followed by three years of physiology, neurology and psychiatry at Johns Hopkins. Upon his return to Harvard he taught and studied neurology, physiology, anatomy and neuropathology. Nine years after his graduation from medical school, he abandoned his hospital and teaching positions to spend two years abroad as a Rockefeller fellow studying the anatomy and physiology of the brain. Upon his return, he laid the groundwork for his first great accomplishment, the opening of the neurological unit at the Boston City Hospital, which he ran from 1929 to 1934. He left this job to open the psychiatric unit at the Massachusetts General Hospital, the first of its kind to be established in a general hospital in this country. He has remained at the M.G.H. ever since. The scope and quantity of his writings have been immense and reflect in some measure both his influence upon medicine and his breadth of interest. He has written five books and over two hundred articles. Most of his papers have been in the fields of neurology and psychiatry, but he also made contributions in the field of ornithology and elsewhere. Perhaps an idea of his wide interests can be given by quoting the titles of his first and one of his more recent articles. The first, written at the age of seventeen and published in the *American Ornithologist*, was entitled "Nesting of a Golden Crowned Kinglet in Mas-

sachusetts." One of the more recent was called "For a Generic Classification of Certain Psychoses." He was still writing ornithology papers in 1945 and may be doing so yet for all we know. He is the editor of three

journals, has been a member of many societies and has served on a number of boards and commissions. There can be little doubt that a professorship named for Dr. Cobb is off to a very good start.

A Message

FROM THE DIRECTOR OF ALUMNI RELATIONS

	Living Members	Givers	Percent Participation	Amount
February 28, 1955	5,431	1942	36%	\$78,888.47
February 28, 1954	5,391	1928	36%	\$78,253.98

The progress report above shows the state of our fund as compared with this time last year. Over the past three years of our effort, a total of 67 per cent of our Alumni have responded. This 67 per cent participation is higher than was generally expected and for this your Council and your Director are most grateful. But we are just barely holding our own, and now we must seriously consider ways and means to enlist the interest and support of the 33 per cent of our Alumni who have not yet joined with us in helping the School. The time has come to raise our sights,—we must try for a higher over-all per cent participation, and we should encourage those who can give more to do so.

These first three years show clearly that the majority of our Alumni are interested and have responded loyally. Your Alumni Office and the class agents, however, need the help of ALL the Alumni, particularly those away from close contact with the School itself. It is easier to bring the problems of the School to those who are geographically nearby for it is easier to present these problems in a personal way by word of mouth and by actual demonstration. This fact is shown by a very definitely

higher per cent of participation from the greater Boston area as compared with the over-all figures from the rest of the country. But, no matter how widely scattered the members of an individual class may be, it is possible to obtain 100 per cent participation as was shown by the article by Bert Dunphy appearing in the last issue of the *Bulletin*—"Why Has 100 Per Cent of the Class of 1933 Contributed to the Alumni Fund?"

Accurate and carefully compiled figures explaining the increased costs of our School are now available in Dean Berry's report elsewhere in this issue. I strongly urge that every Alumnus study the material in this report. This report took time and effort to prepare and presents very clear evidence,—factual, not emotional,—of our School's needs.

The need is real and the problem great. With a little effort on the part of each Alumnus, we can be of constantly increasing service to our School. The education of our associates and our successors is a vital and worthy cause. From the showing of the past three years, I feel sure that our Alumni Association can and will go a long way to insure continuing success. We need the help of ALL our Alumni.

PROPOSED CONSTITUTIONAL CHANGES

Barrett Wendell, Jr., ACTING EXECUTIVE SECRETARY

The midwinter business meeting of the Alumni Council was held on Saturday, January 29. Following an established custom, the morning session was devoted to the presentation by a faculty member of some aspect of the School. On this occasion, the 14 members of the Council present enjoyed a two-hour discussion and demonstration of the electronic microscope by Dr. Don W. Fawcett. Following a brief lunch at Vanderbilt Hall, the business meeting was called to order. The ensuing paragraphs are a detailed account of the most important matter that was acted upon.

At the October, 1954 meeting of the Council, certain of its members questioned the adequacy of the Alumni Association Constitution as it now stands. They expressed the belief that since the Constitution had been drawn, certain procedures had developed that rendered some of its provisions obsolete or insufficient for their particular purposes. The President, therefore, appointed a committee consisting of Dr. J. Englebert Dunphy, Chairman, Dr. Arthur Pier and Dr. Curtis Prout to consider the problem and to report back at the next meeting with their recommendations, if any.

At the January meeting, the committee suggested a number of desirable changes and/or additions falling into three general categories.

1. In a few instances, procedures had evolved which were desirable but contrary to specific constitutional provisions. In these instances, it appeared worth while to amend the Constitution to formalize current practices.
2. In two cases, provisions, while otherwise suitable, were found to be out of place.
3. In certain areas, the Constitution proved inadequate, incomplete, or inconsistent.

The Council unanimously approved the report of the committee at the January meeting, and recommended that appropriate action be taken. As the Constitution can only be amended by a majority vote of those present at an Annual Meeting of the Association, or at a meeting thereof called for that specific purpose, these proposals are to be submitted to the Association at its next Annual Meeting, May 27, 1955, for consideration. Notice thereof has already been forwarded to all members of the Association via the March mailings from the Alumni Office.

So much for the background; let us now turn to a discussion of the proposed amendments themselves.

I. Article 6 of the Constitution now reads:

"The annual meeting of the Association shall be held at Boston, Massachusetts on the Wednesday preceding the annual commencement of Harvard College, provided, however, that the Council shall have the power to appoint in any year a different time and place for the annual meeting, if deemed expedient."

For some years the Annual Meeting has been held on the morning of Alumni Day, which does *not* fall on the Wednesday preceding the annual commencement of Harvard College. The report urged the desirability of continuing the present practice of the Association. It is therefore proposed that this section be amended to read

Article 6, Section 1

"The annual meeting of the Association shall be held in Boston, Massachusetts in association with Alumni Day of the Medical School."

II. Article 8, Section 3 of the Constitution now reads:

"The President or the Council shall have the power to fix the number of members of the Association necessary to constitute a quorum for the transaction of any and all business."

This provision refers to the transaction of business at the Annual Meeting and as such it is suitable. However, it is now included in Arti-

cle 8 which is concerned with the Council of the Association, and therefore is out of place. The Council is of the opinion that each article of the Constitution should concern itself with but one single subject. It is recommended, therefore, that the present Section 3 of Article 8 be transferred in its entirety to Section 2 of Article 6.

III-V. No provision is made in the Constitution for the three stated Council meetings which are held yearly, for the cancellation or postponement thereof, or for a quorum necessary to transact business in Council meetings. All of these matters should be included in that Article which provides for the Council and its functions. The Council proposes the following additions to Article 8, which, if approved, will appear as designated:

Article 8, Section 3

"The Council shall hold three stated meetings each year, one in the fall, one in the winter, and one just preceding the annual meeting of the Association."

Article 8, Section 4

"The President may postpone or cancel stated meetings or call additional meetings as may seem expedient, with the approval of the Council."

Article 8, Section 5

"For purposes of transacting business at all meetings of the Council, seven members thereof shall constitute a quorum."

VI. Article 9, Section 1 now reads:

"The President, the Secretary and the Treasurer shall each submit to the Association, at its annual meeting, a report for the preceding year."

This is another instance of a provision which is suitable but is out of place since it is concerned with the annual meeting. By the same reasoning as that applied to Proposal II, the Council recommends that it appear unchanged in the revised text as Article 6, Section 3.

VII. Article 9, Section 2 now reads:

"The *Bulletin* of the Harvard Medical Alumni Association shall be the official organ of the Association. The Secretary of the Association shall be *ex officio* Editor of



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THE COOP

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Patronage Refund Too

the *Bulletin* and the Treasurer of the Association shall be *ex officio* Business Manager of the *Bulletin*."

The Council feels quite strongly that election to the position of Secretary of the Association should not automatically carry with it the editorship of the *Bulletin*. Under the present Constitutional provision it is impossible to assure either continuity of policy or quality of leadership. As far as the *Bulletin* is concerned, the only thing that is certain under the present provision is that the job of Editor automatically rotates every three years, and this is *not* desirable. By the same token, the Council argues that the job of Treasurer of the Association and Business Manager of the *Bulletin* ought to be separate. It maintains that the Editor should have the freedom to appoint a Business Manager of his own choosing who is not subject to a limited term of office as an elected official of the Association. Consequently, the Council recommends that Article 9, Section 2 be struck out and that the Association adopt the following provisions in its place:

Article 9, Section 1

"The *Bulletin* of the Harvard Medical

Alumni Association shall be the official organ of the Association."

Article 9, Section 2

"The Editor of the *Bulletin* shall be appointed to that office by the President and confirmed by the Council. He shall hold office without limit of time. He shall be *ex officio* a member of the Council."

Article 9, Section 3

"The Business Manager of the *Bulletin* shall be appointed by the Editor of the *Bulletin* subject to approval by the Council."

Lest there be confusion, the reader is reminded that in Proposal VI above, the present Article 9, Section 1 is to be transferred to Article 6, Section 3.

VIII. By-Law 1, Paragraph 2 now provides that:

"There shall be a committee, to consist of five active members, to be appointed by the President of the Association in October of each year. . ."

The Council recommends that the language relative to the selection of this nominating committee, except for the size thereof, correspond exactly with the provisions of By-Law 2 which reads as follows:

"There shall be a Committee to nominate officers consisting of three members to be appointed by the President of the Association and confirmed by the Council at its first meeting in the fall of each year. . ."

The reason is that these two committees are appointed at the same meeting and for parallel purposes, i.e. the nomination of candidates on the one hand for the Council and on the other hand for the Officers of the Association. Therefore, the means by which they are established ought to be identical. Consequently, the Council urges the Association to amend Paragraph 2 of By-Law 1 to read:

"There shall be a committee to consist of five members to be appointed by the President of the Association and confirmed by the Council at its first meeting in the fall of each year. . ."

The foregoing explanations of the proposed changes has been printed in the *Bulletin* at the suggestion of the Council so that all members of the Alumni Association will be familiar with them. It is hoped that the explanations are clear. It is further hoped that as many of the Alumni as possible will be present at the Annual Meeting to vote on these amendments. Either the Council or the Alumni Office will be glad to attempt further clarification of the proposals should anyone so desire.

NECROLOGY

1886

CHARLES JENKINS FOOTE died at New Haven, Connecticut, December 29, 1954.

1892

EUGENE THAYER died at Boston, Massachusetts, February 20, 1955.

1893

EDMOND FRANCIS CODY died at Attleboro, Massachusetts, February 4, 1955.

1896

GEORGE THORNTON PAGE died at Brookline, Massachusetts, October 7, 1954.

1898

HARVEY ADAMS FIELD died at Roslindale, Massachusetts, October 17, 1954.

1901

WILLIAM WELLES HOYT died at Cambridge, New York, December 1, 1954.

GEORGE PHIPPEN SANBORN died at Boston, Massachusetts, February 10, 1955.

1902

JAMES ROCKWELL TORBERT died at Boston, Massachusetts, January 27, 1955.

1908

FREDERICK ORRA WEST died at Woburn, Massachusetts, December 30, 1954.

1910

KENNETH IRA BALCOM died at Worcester, Massachusetts, January 2, 1955.

CARO WOLFRAM LIPPMAN died at Berkeley, California, November 14, 1954.

1913

WOLFERT GERSON WEBBER died at Amherst, Massachusetts, December 9, 1954.

1920

JOHN FOWLER GILE died at Hanover, New Hampshire, January 29, 1955.

ELI CHARLES ROMBERG died at Brookline, Massachusetts, February 28, 1955.

1926

MONROE JACOB SCHLESINGER died at Boston, Massachusetts, January 20, 1955.

1927

WILLIAM HAROLD DUNN died at New York City, February 12, 1955.

1928

MELVILLE DAY DICKINSON, JR. died at Tokyo, Japan, December 20, 1954.

MORRIS INGALL died at Newton, Massachusetts, January 9, 1955.

1932

RICHARD HATSUHIKO ARIMIZU died at Hilo, Hawaii, November 10, 1954.

1947

BREWSTER CALHOUN ROBINSON died July 20, 1954.

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ALUMNI NOTES

1886

Charles Jenkins Foote (A.B. Yale, '83) died at New Haven, Connecticut, December 29, 1954. Dr. Foote began practice in New Haven, Connecticut in 1888 and was appointed instructor in clinical medicine at Yale in 1890. The following year, he became visiting physician at Grace-New Haven Hospital. He was a former president of the New Haven Medical Society. Dr. Foote is survived by a daughter and a sister.

1892

Eugene Thayer (A.B. Amherst, '89) died at Boston, Massachusetts, February 20, 1955. For more than 20 years Dr. Thayer was a lecturer on anatomy at Tufts Medical School, and he practiced medicine in Roxbury for 60 years. He was a member of the Paul Revere Lodge of Masons in Boston. He is survived by his daughter.

1893

Edmond Francis Cody died at Attleboro, Massachusetts, February 4, 1955.

1896

George Thornton Page (A.B. Harvard, '92) died at Brookline, Massachusetts, October 7, 1954. He was a member of the New England Ophthalmological Society and of the American Medical Association.

1898

Harvey Adams Field died at Roslindale, Massachusetts, October 17, 1954.

1900

A "Book of Golden Deeds" award was presented to William W. McKibben, one of Miami's and Florida's oldest and best-known physicians, at a recent banquet. The award is given annually to a Miami resident who has served the community in an outstanding manner for a long time. In presenting the award, Roy A. Perry called Dr. McKibben "a man whose unselfish record to mankind has made him a real doer of golden deeds for more than half a century."

1901

William Welles Hoyt died at Cambridge, New York, December 1, 1954. Dr. Hoyt, a member of the American Medical Association, was for some time associated with the U.S. Public Health Service.

George Phippen Sanborn (A.B. Harvard, '97) died at Boston, Massachusetts, February 10, 1955. A former consultant in the department of applied immunology at Boston City Hospital, Dr. Sanborn practiced in Boston from 1902 until his retirement in 1949. He is survived by a son and a sister.

1902

James Rockwell Torbert died at Boston, Massachusetts, January 27, 1955.

1905

Nathaniel W. Faxon has been elected

president of the New England Peabody Home for Crippled Children.

At the Annual Meeting of the American Academy of Tropical Medicine and the American Society of Tropical Medicine, George C. Shattuck was awarded the Theobald Smith Medal by the Academy.

Meanwhile, in November 1954 Mrs. Shattuck received a high Peruvian decoration at the Peruvian Embassy in Washington. This decoration was awarded in recognition of Mrs. Shattuck's many years of effort to promote inter-American friendship. She has worked in this area as an officer of the Pan-American Society of New England.

1908

William Sharpe is just finishing his second book, "Episodes in the Life of a Brain Surgeon," which will be published by the Viking Press, N.Y.

Frederick Orra West (S.B. Harvard, '05) died at Woburn, Massachusetts, December 30, 1954. He had served as chief of the medical staff of the Choate Memorial Hospital, a member of the Woburn Board of Health and Charities, and, for two years, a school committee member. Dr. West was a member of the American Medical Association, the Massachusetts Medical Society, Mt. Horeb Lodge of Masons, and the Woburn Rotary Club. He is survived by his wife, a son, and three daughters.

1910

Kenneth Ira Balcom died at Worcester, Massachusetts, January 2, 1955.

Caro Wolfram Lippman died at Berkeley, California, November 14, 1954. He was a member of the American Medical Association. Dr. Lippman is survived by his wife.

1912

Louis H. Bauer received the Carlos Finlay Award in the "Official" grade on December 3, 1954. The award was presented by the Provisional President of Cuba. Earlier in the same evening he was made an Honorary Member of the Cuban Medical Association.

1913

Wolfert Gerson Webber (A.B. Harvard, '09) died at Amherst, Massachusetts, December 9, 1954. After serving as epidemiologist for the City of Boston, Assistant Commissioner of Public Health for the Commonwealth of Massachusetts, and Resident Physician for Northfield Seminary and Mount Hermon School, Dr. Webber took up residence in Amherst for the private practice of medicine. In the 13 years prior to his retirement in 1947, he was active in many civic endeavors: physician to the public schools, Chairman of the Board of Health, Associate Medical Examiner for Hampshire County, and head of the medical division of civilian defense. He was a member of the Massachusetts Medical So-

